The Theory and Practice of Tone-Relations

by

Percy Goetschius, Mus.Doc.

NEW YORK: G. SCHIRMER
BOSTON: THE BOSTON MUSIC CO.

THE

THEORY AND PRACTICE

OF

TONE-RELATIONS

A CONDENSED COURSE OF

HARMONY

CONDUCTED UPON A

CONTRAPUNTAL BASIS

BY

PERCY GOETSCHIUS, Mus. Doc.

Royal Württemberg Professor

AUTHOR OF

"The Material Used in Musical Composition," "Models of the Principal Musical Forms," "The Homophonic Forms of Musical Composition," "Exercises in Melody-Writing," Etc.

REVISED AND ENLARGED

NEW YORK

G. SCHIRMER, 3 E. 43rd Street

TEXAS EASTERN UNIVERSITY

LIBRARY

COPYRIGHTED 1892
BY PERCY GOETSCHIUS.
COPYRIGHTED 1900
BY G. SCHIRMER.

PREFACE.

I. CONTRAPUNTAL HARMONY.

IT has been a universal custom to regard "Counterpoint" and "Harmony" as two distinct branches of the study of tone-relation and tone-combination. This view is of historic origin and has been well grounded in the practices of composition during past history. But the conception of the art of music has undergone radical changes in our century, and these have brought new views and new needs into the science of musical texture.

The four terms: Harmony, Homophony, Counterpoint, and Polyphony, are generally understood to have the following meaning: —

HARMONY treats of the combination of tones in chords, and the progressive connection of these chords. It is a *method*, the method of fixing the compact tone-pillars of the musical phrase; and the *style* to which it gives rise is called HOMOPHONY, or the monophonic style.

COUNTERPOINT treats of the association of one tone with another ("tone against tone" in its narrowest sense), or of one tone-series with another tone-series (in its broadest sense). It is also a *method*, the method of combining melodies; and the *style* to which it gives rise is called POLYPHONY.

Of these two methods, Harmony has been universally treated as the more narrow, yielding merely a knowledge of the chords, but not involving of necessity the consideration of Melody at all. But Melody is the quintessence of music, and the highest aim of the student is to master the secrets of Melody, and of the union of Melodies. *Of this aim the student cannot become conscious too early; nor can he begin too soon to direct his efforts towards its realization.* The chord-system (so-called Harmony) is the fundament and source of all music, homophonic and polyphonic. The melodic lines are evolved out of the chord-series; i.e., the conduct of the melodic voice, or voices, is dictated, at its salient points, by the natural arrangement of the chords; and the only difference between the harmonic and contrapuntal modes has been, that in Harmony the student might content himself with deriving, at most, *one single* genuine melodic voice (generally the Soprano) from his given chords, whereas in Counterpoint he is induced to evolve *two or more* genuine melodic voices simultaneously out of the chord-basis.

The author regards it as a needless waste of time, and moreover as a positive pedagogic error, to defer the exercise of the contrapuntal principle until the system of chords has been mastered, and thus to make a separate phase of study of "Strict Counterpoint" (as it is called). More than one eminent authority has recently confirmed the author's opinion that "correct Counterpoint is based upon correct Harmony," — that, in other words, it is impossible to separate one from the other. Then why not *exercise them together* from the outset? A pupil who is not able to study Harmony from the contrapuntal standpoint, is evidently unfitted for the scientific pursuit of the art from any standpoint.

By the contrapuntal standpoint is meant, then, the standpoint of MELODY, both single Melody and combined Melody. And by "Contrapuntal Harmony" is meant a system of harmonic exercise in which the principle of Melody prevails throughout, as the last and best product that the chords can yield. This principle should be held before the student's mind continually, and the author expects the study of this book to be prosecuted from the contrapuntal standpoint, with the end constantly in view of evolving the greatest possible degree of Melody out of the simple harmonic (or chord) conditions.

DIRECTIONS.

At first, in working from given chords (Lessons 7, 8, 9, 12, 14, 15, etc.), the pupil will necessarily limit his attention to only one of the four melodic lines, and may be well satisfied when he has learned to conduct the *Soprano* voice melodiously, leaving the three lower voices simply to complete the Chords (the perpendicular columns of tone) as smoothly as possible, but without special regard to their horizontal movements.

When the Soprano-melody is given (as in Lessons 10, 11, 13, 16, 18, etc.), the student will direct his attention to the melodic movement of the *Bass* voice; *a melodious Bass invented in harmony with a given melodious Soprano is already an example of melody-combination* (*Counterpoint, or, more accurately, contrapuntal Harmony*).

Inversely, when the Bass-melody is given (as in Lessons 31, 32, 41, etc.), the pupil's mind should be concentrated upon the *Soprano* melody. In this manner the two principal (outer) voices, at least, will assume a genuine melodic character, and the intrinsic musical value of the phrase will be enhanced.

In the more advanced chord-exercises (Lessons 24, 33, and others) the pupil should endeavor to impart to both Soprano and Bass a correct and interesting melodic form.

As the student becomes more and more familiar with the principal chords, and more skillful in the art of melodic conduct, he may direct a certain degree of attention to one of the inner voices also; and then to both inner voices; until, finally, the entire four-voice harmonic structure will become a *contrapuntal* product, derived from the harmonic source by constant application of the principle of Melody.

II. SCOPE OF THE PRESENT VOLUME.

The "Theory and Practice of Tone-relations," although a complete course of Harmony by itself, has been calculated to prepare the student for the more thorough and exhaustive course of study in the same author's "Material used in Musical Composition" (published by G. Schirmer, N. Y.), to which reference is made at the head of the principal chapters. The present treatise will therefore be found to contain all the essential requirements of a system of Harmony, but in a condensed and simple form, adapted to the use of beginners, who, however, *are expected to have mastered already all the rudiments of musical knowledge.* The basis of all the Lessons or Exercises being the chords themselves (indicated by Roman numerals), or the Melody, this course of study, if properly pursued, will teach the student the *practical* uses of the essential factors of harmonic combination, and prepare him for the easy comprehension and appropriation of its minuter and more intricate details.

Those who intend to continue their studies, after completing the present course, will find it possible to pass over the first hundred pages of "The Material used in Musical Composition" quite rapidly, and are recommended so to do, beginning their thorough work at § 221. Such advanced students are also expected to make *independent practical application* of all the given Exercise-material, *in exclusively original Phrases and Periods.*

After supplementing this course of study by a thorough review of the second half of the "Material Used in Musical Composition" (as already suggested), and by a practical course of training in the Smaller (homophonic) Forms of Composition, *the student will find that he has no need of an additional course in "Strict Counterpoint," but may proceed at once to the "application" of the contrapuntal principles he has acquired, in the simpler polyphonic Forms (Invention, Prelude, Choral-figuration), and from these on into the Fugue and Canon,—the proper domain of Strict contrapuntal discipline.*

THE AUTHOR.

Boston, Mass, 1899.

CONTENTS.

Division I. Simple Harmonies.

PAGE.

CHAPTER I. Tone and Key 3
Formation of Natural Scale. . . . 5
Formation of Diatonic Scale . . . 6
Names of Scale-steps 7
Lesson 1 7

CHAPTER II. Intervals. 7
Lesson 2. 9

CHAPTER III. Consonance and Dissonance 10
Inversion of Intervals 10
Table of Consonances and Dissonances 11
Chord-construction 11
Relation of Triads within one Key . 13
Lesson 3 15

CHAPTER IV. Rhythm, Primary Rules 15
Melody, Primary Rules 17
Lesson 4 19

CHAPTER V. Voices or Parts 20
Chord-erection 20
Lesson 5 22

CHAPTER VI. Rules of Part-writing . 22
General Exception 24
Lesson 6 24

CHAPTER VII. Perfect Cadence . . . 25
Phrase-structure 26
Connections of Principal Triads . . 26
Lesson 7 29

CHAPTER VIII. Principal Triads, continued 30
Lesson 8 31

PAGE.

CHAPTER IX. Complete Phrases . . 31
Lesson 9 32

CHAPTER X. Harmonizing of Melodies (Principal Triads) 33
Lesson 10 34

CHAPTER XI. The Harmonic Minor Mode 35
Lesson 11 37

CHAPTER XII. Subordinate Triads in Major 38
Lesson 12 40

CHAPTER XIII. Harmonizing of Melodies (Subordinate Triads) . . . 41
Lesson 13 42

CHAPTER XIV. Subordinate Triads in Minor. 43
The Period 44
Lesson 14 45

CHAPTER XV. Chord-inversion . . . 46
Chords of the Sixth 47
Lesson 15 48

CHAPTER XVI. Harmonizing of Melodies (Chords of the Sixth) . . . 49
Sequences (Concords). 50
Lesson 16 52

CHAPTER XVII. Chords of the Six-four 53
Tonic Six-four Chord 54
Lesson 17 57

CHAPTER XVIII. Other six-four Chords 57
Lesson 18 59

Division II. Discord Harmonies.

INTRODUCTORY. Chords of the Seventh and their Classification 61

CHAPTER XIX. Chord of the Dominant-seventh 62
Lesson 19 63

CHAPTER XX. Inversions of the Dominant-seventh 64
Lesson 20 66

CHAPTER XXI. Melodies (Dominant-seventh and Inversions) 66
Lesson 21 67
Lesson 22 68

CHAPTER XXII. Dominant-seventh, Licences of Repetition 69
Lesson 23 70
Lesson 24 70

CHAPTER XXIII. Dominant-seventh, other Licences 71
Lesson 25 72

CHAPTER XXIV. Diminished Triads, Incomplete Dominant-seventh . . 72
The II in Minor 74
Lesson 26 74
Lesson 27 75

CHAPTER XXV. Dominant-ninth, Major 75
Lesson 28 78

CHAPTER XXVI. Dominant-ninth, Minor 78
Chord of the Diminished Seventh . 80
Lesson 29 81
Lesson 30 81

CHAPTER XXVII. Unfigured Basses . 82
Lesson 31 82
Lesson 32 83

CHAPTER XXVIII. Diminished-seventh Chord, continued 84
Lesson 33 84

CHAPTER XXIX. Second-class Discords 85
Lesson 34 88
Lesson 35 89

CHAPTER XXX. Other Second-class Discords 89
Discords of the Third and Fourth Class 90
Sequences (Discords) 91
Augmented Triad (III in Minor) . . 92
Lesson 36 92

Division III. Modulation.

CHAPTER XXXI. The System of Keys and Modes 93
Key-relations 94

Rules of Modulation 95
Lesson 37 97

CHAPTER XXXII. Next-related Modulations, Complete 97
Lesson 38 98
Lesson 39 98

CHAPTER XXXIII. Next-related Modulations, Transient 99
Lesson 40 100
Lesson 41 100

CHAPTER XXXIV. The Altered Chords in Major 101
Lesson 42 104

CHAPTER XXXV. The Altered Chords in Minor 104
Melodic Minor Scale 105
Lesson 43 108

CHAPTER XXXVI. Mixed Chords in Major and Minor (Chords of the Augmented Sixth) 109
Lesson 44 111

CHAPTER XXXVII. Extraneous Modulation (indirect) 112
Lesson 45 112
Lesson 46 113
Lesson 47 113

CHAPTER XXXVIII. Direct Extraneous Modulation. The Stride . 114
Lesson 48 115

CHAPTER XXXIX. Exchange of Mode 116
Lesson 49 118

CHAPTER XL. Sequence-modulation . 119
Cadence-modulation 121
Lesson 50 122

CHAPTER XLI. Chord of the Diminished-seventh, as modulatory agent 123
Lesson 51 125
Lesson 52 125

CHAPTER XLII. Consecutive Dominant Chords 126
The Chromatic Inflection 126
Lesson 53 129

CHAPTER XLIII. Enharmonic transformation of the Diminished Seventh 129
Enharmonic transformation of the Dominant Seventh 132
Lesson 54 134

Division IV. Inharmonic Tones.

INTRODUCTORY. Definition and Classification 135

CHAPTER XLIV. The Organ-Point (Tonic) 136
The Organ-Point (Dominant) . . . 137
The Organ-Point (Pastoral). . . . 137
The Organ-Point (Other Steps) . . 138
Lesson 55 139

CHAPTER XLV. The Suspension . . 140
Lesson 56 143
Lesson 57 143

CHAPTER XLVI. Irregular Resolutions of the Suspension 144
Lesson 58 145

CHAPTER XLVII. Irregular Introduction of the Suspension. 146
Lesson 59 147

CHAPTER XLVIII. The Anticipation . 148
Lesson 60 150

CHAPTER XLIX. The Neighboring-note 151
Lesson 61 154

CHAPTER L. The Passing-note (Unaccented) 156
The Passing-note (Accented) . . . 157
Lesson 62 159

CHAPTER LI. The Appoggiatura. . . 160
Lesson 63 164

CHAPTER LII. Embellishment in Alternate Voices 164
Lesson 64 165
Lesson 65 166

CHAPTER LIII. Harmonizing of Embellished Melodies 166
Lesson 66 166
Lesson 67 168
Lesson 68 (Embellished Basses). . 169

CHAPTER LIV. Analysis 171
Lesson 69 171
Lesson 70 172
Lesson 71 174
Lesson 72 175
APPENDICES 178

DIVISION ONE.

SIMPLE HARMONIES.

CHAPTER I.

Tone and Key.

("Material used in Musical Composition," §§ 21—24.)

1. A "Tone," or musical sound, is distinguished from sound or noise in general in being *fixed*, instead of undulating; in maintaining a certain location in the realm of Sound, like the tone of a bell or whistle, in distinction to the ever-varying moan of the wind. This distinction is most apparent in our treatment of the voice in singing and in speaking, respectively; in the former case we produce *tones*, by firmly maintaining a certain degree of tension of the vocal cords for each utterance, while in speaking no such tension is sustained, and the voice therefore simply undulates.

2. Like the tones of the voice, so all tones in nature are owing to the intentional or accidental *tension* of some elastic body, which, on this very account, *maintains* its vibration, when set in motion, at the same (inconceivably high) rate of speed, thus *fixing* the location or pitch of its tone. This *fixing* of the sound is the very first act in the evolution of a musical science. By *fixing* the sound, as Tone, it becomes an object of experiment, observation and association; it enters into perfectly definite relations with other fixed tones, which cluster about it as their centre, and thus it becomes an art-factor.

For the past 300 years the steady tendency of musical composition has been to deprive tone-material of this primary quality of centralization, and to transform it into a more vague and floating medium of fancy. Hence the increasing frequency of chromatic successions, which have attained such characteristic predominance in the music of our day that the fundamental idea of a central tone as Key-note is often obscured, or even completely negated.

3. The sound-waves, generated by the vibration of the elastic body from which a Tone is to be elicited, are as regular in their velocity as the succession of vibrations, and can therefore be indicated by an arithmetical ratio or *number;*

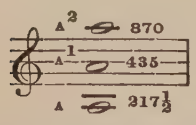
Hence a Tone, being a fixed quantity, can be designated by a number, and the relation of tone to tone is purely a matter of mathematical proportion.

The pursuance of this axiom leads to the following conclusions and deductions:

4. For illustration, the sensation or Tone called a^1, and written on the second space of the G-staff, is aroused by sound-waves acting upon the drum of the ear at the even velocity of 435 strokes (870 alternate condensations and rarifications of air) in a second of time. Therefore this tone a^1 is designated by the number 435. Every pianoforte string or violin string vibrating at exactly this rate of speed will be in perfect "Unison" with the tone a^1, and the arithmetical proportion of one to the other is 435 to 435, or 1 : 1.

5. Another string of half the length, and vibrating exactly *twice* as fast (870 times a second), will produce sound-waves with which the sound-waves of the first tone obviously agree, stroke for stroke, so that there is no actual conflict of pulsation, and the effect upon the sense is that of consonance (agreement or harmony of sound.) But the shorter string adds an intermediate wave to each wave of the longer string, thus altering the *quality* of what is virtually the same tone, so that it impresses the ear more *acutely*, and sounds (as the parallelism of sensation involuntarily induces us to assume) *higher*. This new tone, designated by the number 870, is then the closest relative of a^1; it is therefore also called a, but the distinction in quality, or degree of acuteness, or location, is indicated thus: a^2, and it is written on the first leger line above the G-staff.

6. The relationship thus established (435 to 870, or 1 : 2) is called the Octave, and is the same in both directions, self-evidently. That is, a string vibrating $217\frac{1}{2}$ times a second, or *half* as fast as the first one (a^1), will produce the next *lower* octave, a, written on the second leger line below the G-staff.

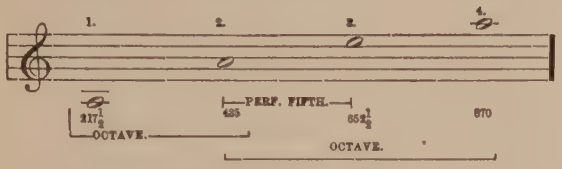


The tone-relation of the Octave *does not arise from the association of two different tones*, but merely indicates a *distinction of register!* For this reason the octave is of no value in active harmony, as it only effects the *duplication* of tones, or the *extension* of the harmonic body into higher and lower registers, without adding any *new factor*.

7. In order to find a NEW tone which, while associating harmoniously with the first, will still furnish a starting point for actual tone-combination, it is equally obvious that the *next simplest* mathematical proportion must be taken; that is 1 to 3, or $217\frac{1}{2} : 652\frac{1}{2}$. The sensation (or tone) produced by the action of $652\frac{1}{2}$ sound-waves in a second upon the ear, is e^2, written on the fourth space of the G-staff, and constituting the interval of a *perfect fifth*

with the middle a (a^1, representing the proportion 2 : 3, while 1 : 3 is the proportion with the *lower a*). Thus:

Ex. 1.



8. From this the facts are deduced, that, while the Unison and Octave are the simplest and most intimate tone-relations,

The perfect fifth is the simplest mathematical proportion and therefore the closest relation that exists between two *different* tones.

For this reason the PERFECT FIFTH, which we will call a HARMONIC DEGREE, must constitute the basis of the whole system of tone-combination, and the STANDARD OF MEASUREMENT in Harmony.

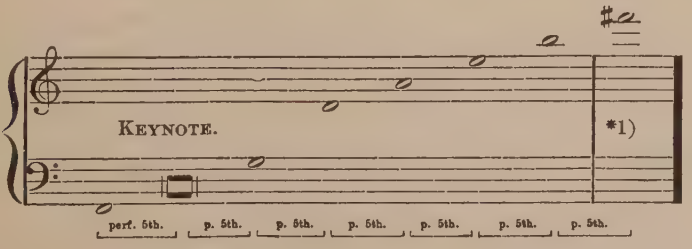
The Scale.

(Mat. Mus. Comp. §§ 6—8.)

9. From the infinite multitude of possible Tones, perceptible to the ear, the intuition of man (in civilized countries) has singled out a limited number (at first seven, and later — as now — twelve), which, with their reproduction or duplication in higher and lower registers, by the Octave proportion, represent the entire absolute tone-material of the art of music. The first-mentioned group of *seven* tones forms a Key or Scale, and is collected in accordance with the above STANDARD (the harmonic degree) in the following manner:

Any Tone may be chosen as "Keynote" or chief of the group; with this no other tones can reasonably be associated than its perfect 5th *above and below*, as next in order of importance in the group. The next member is the perfect 5th above the upper tone; and in the same manner a new *higher* perfect 5th is associated with each member last found, *until a tone is reached which would contradict the lowest one.* Thus, assuming the Tone C as Keynote:

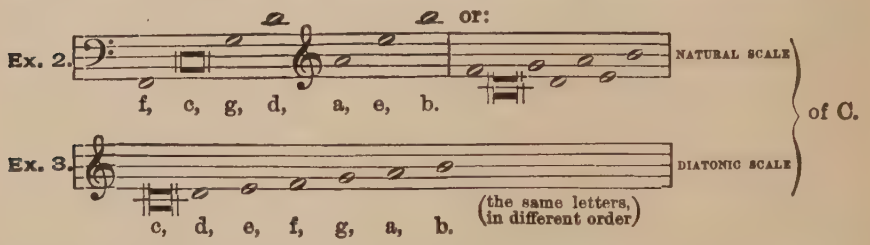
Ex. 2.



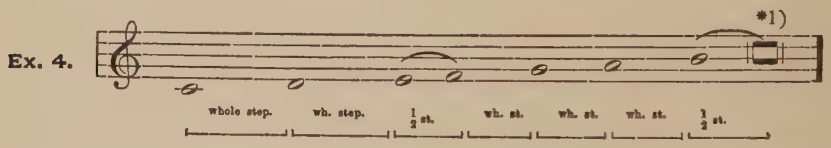
*1) The tone F-sharp does not appear in the *authentic* group or Key of C, because it contradicts F-natural, the lowermost member. Why the latter, F-natural, should be preferred to F-sharp, notwithstanding it lies *below* what should properly be the *fundamental* tone, or basis (C); and how very frequently the F-sharp is nevertheless preferred to F-natural, and adopted as momentary member of the C-family, will be seen in due time.

10. This illustration also accounts for there being no more nor less than just *seven* members in an authentic Scale or family of tones, usually called a Key. There is no question in this case about the 6 tones, c, g, d, a, e, b; and as to F-natural or F-sharp, it is certain that *one or the other* must be admitted into the family of C.

11. This is the true NATURAL SCALE, composed of *equal* contiguous intervals. For the sake of convenience, the seven tones are drawn into close proximity by simply transferring certain tones down or up by the Octave-proportion (whereby, as shown in paragr. 6, their significations are in no wise altered). In this way the so-called DIATONIC SCALE is obtained:



12. This Diatonic Scale comprises the tones of the MAJOR MODE, so designated for reasons given later on. Upon examination it is found that the contiguous intervals of the Diatonic Scale, unlike those of the Natural Scale, are *not* uniform, but differ as follows:



*1) Here the Keynote is reproduced in the next higher Octave, in order to complete the circuit of tones.

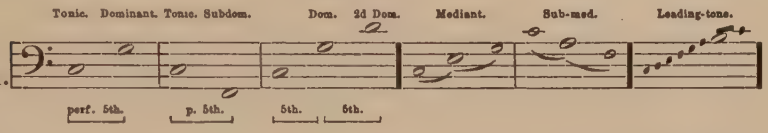
That is: the distance between the *3rd and 4th* tones,* and also between the *7th and 8th* tones, is only half as great as that between all the other contiguous tones. This has no other importance for us at present than to illustrate the accidental relative location assumed by the seven tones when transferred from their order in the *Natural* Scale, to that of the *Diatonic* Scale. At the same time, it is a convenient external guide to the ready mechanical formation of any diatonic major scale, and should therefore be carefully observed.

* These tones are called SCALE-STEPS (or, frequently, degrees of the scale— i. e. *Diatonic* scale).

13. The *diatonic* form of the scale is that upon which all practical composition is based. The names given to the seven Scale-steps (numbered from the Keynote upward), arranged according to their relative importance, are as follows:

First step — Keynote or TONIC;
5th step (perf. 5th above Tonic) DOMINANT (dominating tone);
4th step (perf. 5th below Tonic) — SUBDOMINANT;
2d step (perf. 5th above Dom.) — SECOND DOMINANT;
6th step (midway between Ton. and Subdom.) — SUB-MEDIANT;
3rd step (midway between Ton. and Dom.) — MEDIANT;
7th step — LEADING-TONE. Thus:

Ex. 5.
C-MAJOR.



14. Of these seven steps, three are very greatly superior to the others, and are therefore called PRINCIPAL scale-steps.

They are, self-evidently, the TONIC and its two perf.-5th relatives, the DOMINANT and SUBDOMINANT.

The 2d, 6th and 3rd steps are called *Subordinate*. The Leading-tone has specific melodic qualities which characterize and set it apart from every other step of the scale.

Lesson I.

A. Write out every major scale, first in its Natural and then in its Diatonic form (Exs. 2 and 4); use no signature, but place the respective *accidental* before each inflected tone. 33 and 34 may be referred to. **B.** Write out the 7 steps of every major scale in the order of their importance, viz: Tonic, Dom., Subdom., 2d Dom., Submed., Med., Leading-tone. **C.** Name, mentally (in response to teacher's question) the 3 principal tones of every scale. **D.** Play the 3 principal tones of every scale on the keyboard in this order: Ton., Subdom., Dom., Tonic.

CHAPTER II.

Intervals.

(Mat. Mus. Comp. §§ 15—20).

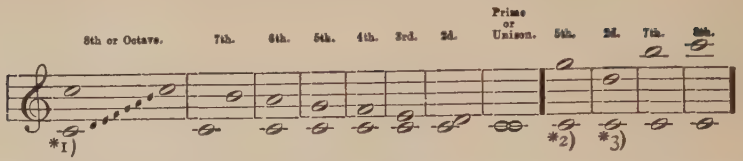
15. The association of any *two* tones is called an Interval. Intervals are always counted *upward*, and

along the DIATONIC MAJOR SCALE of the lower tone.

The *number of the step* which is occupied by the upper tone is the

numerical name of the interval. For example:

Ex. 6.



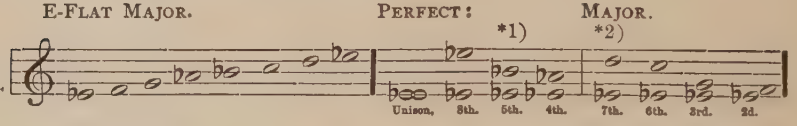
etc.

*1) From c^1 to c^2 is an *8th* or Octave, because, counting upward along the major scale of C, the next *c* is the *8th step*. C-B is a seventh, as *b* is the seventh step from C, in ascending succession.—*2) Whether within or beyond an Octave, the name of the interval invariably corresponds to the *number* of the step of the scale occupied by the upper tone (Comp. 6).—*3) The only exception is in the case of the interval next above the 8ve, which in some special cases (see 24) is called a Ninth, instead of a Second.

16. All those intervals which agree with the natural major scale (i. e. where the upper tone *corresponds exactly* to the scale-step of the lower tone as Tonic), are called NATURAL or diatonic intervals. Hence, the intervals in Ex. 6 are all Natural. They are qualified as *Perfect* or as *Major*, as follows:

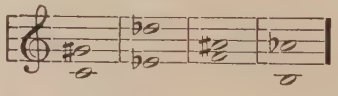
The natural (or scale) UNISON, FOURTH, FIFTH and OCTAVE are PERFECT. The natural (or scale) SECOND, THIRD, SIXTH and SEVENTH are MAJOR.

Ex. 7.



*1) *E-flat—b-flat* is a "perfect 5th"; a "5th", because b-flat is the 5th step of the major scale of E-flat; and a "perfect" 5th, because B-flat exactly *corresponds* to the scale of E-flat, and because diatonic 5ths are qualified as "perfect" (not "major").—*2) E-flat—d is a "major 7th" (not "perfect"), for similar reasons.

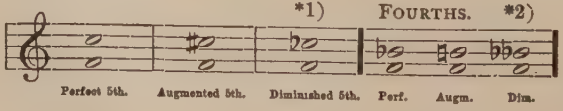
17. But the upper of two tones does not always agree thus with the major scale of the lower tone; for example:



etc.

Such tone-relations are termed CHROMATIC intervals, and are qualified as follows: Any perfect interval when extended by an *accidental* before the upper tone (THE LETTERS REMAINING THE SAME!) becomes *Augmented* when similarly contracted, it becomes *Diminished*. Thus:

Ex. 8.



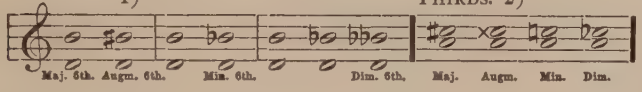
*1) Not *B-natural* instead of *C-flat*! The letter *C* confirms the interval as a "5th" of some kind or other. The letter *B* would be some species of *fourth*.—*2) Not *A* instead of *B-double-flat*; the *letter* must remain unchanged, as it determines the numerical name of the interval.

18. Analogously, any Major interval when extended by an accidental becomes *Augmented;*

when contracted by an accidental, a Major interval becomes MINOR!

One similar contraction of a minor interval, or *two* contractions of the corresponding *major* interval results in the Diminution of the same. Thus:

Ex. 9.

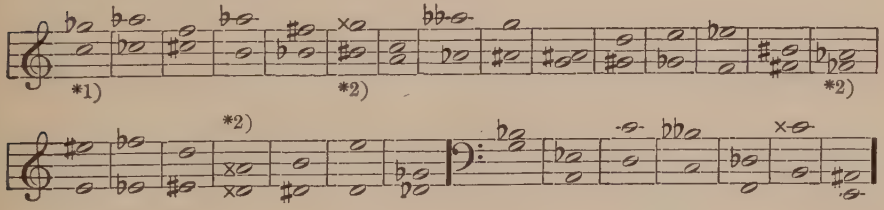


*1) Not *C* for *B-sharp!*—*2) Not *D* for *C-double-sharp!*

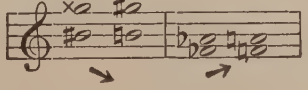
Lesson 2.

A. Write out the perfect 4th and perfect 5th of the following tones: C, G, F, D, B-flat, A, E-flat, E, A-flat, B, D-flat, F-sharp, G-flat, C-sharp, C-flat, G-sharp, D-sharp.— Write out the major 3rd and major 6th of the same tones.— Write out the major 2d and major 7th of the same tones, in optional order.— Write out the augm. 2d, 3rd, 4th, 5th, 6th, 7th, and 8th of F, B-flat, E-flat, A-flat, D-flat, C, G, D, A, E, B, G-flat, C-flat, F-sharp, C-sharp, D-sharp.—Write out the minor 7th, 6th, 3rd and 2d of the same tones.— Write out the dim. 8th, 7th, 6th, 5th, 4th, 3rd, and 2d, of the same tones, in optional order.

B. Name the following given intervals:



*1) The lower tone is to be regarded, in every case, as a Tonic. The number of the upper step, is the name of the interval; if the upper tone conforms to the scale, the interval is either perfect or major, according to Ex. 7; if not, it is augm., minor, or dim., according to Exs. 8 and 9.—*2) In case the lower tone is an impracticable Tonic, as here, *shift the interval bodily* upward or downward, but without changing the letters! Thus:



etc.

CHAPTER III.

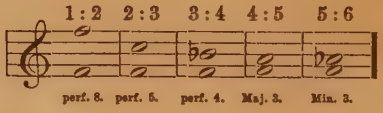
Chord-Construction.

CONSONANCE AND DISSONANCE.

(Mat. Mus. Comp. §§ 25—26.)

19. As has been seen, the most intimate intervals are the Unison, Octave and perfect fifth (paragraph 8.) The other interval relations are qualified according to the same rule of proportion, which determines their respective degrees of *consonance or euphony* with mathematical infallibility leaving nothing to the fallible and unreliable ear but to confirm and accept the result, correcting itself, if needs be, thereby. The next simplest arithmetical proportion is 3 : 4; two sets of sound-waves acting upon the organ of hearing in these proportions of velocity produce the double sensation of the *perfect fourth.* This is illustrated in Ex. 1, between the upper two tones, e^2 and a^2. The average ear will perceive that this interval is *somewhat less agreeable* than the perf. 5th, albeit the tones are the same, and therefore the *harmonic significations and functions* identical. The proportion 4 : 5 gives the *major 3rd;* 5 : 6 the *minor 3rd;* consequently the former is the better (most consonant) interval of the two. As the proportion becomes more complicated, the tones are observed to approach each other, and the *grade of consonance gradually decreases.* Thus:

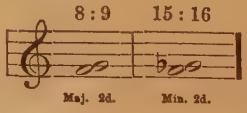
Ex. 10. (at Pianof.)



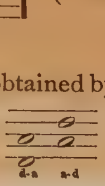
(Consonances.)

20. The next proportion, 8 : 9, is the *major 2d*, which is *palpably* no longer consonant, but *dissonant*, because the conflict of tone-waves here reaches an extent which is disagreeable. Hence, *the minor third is the smallest consonant interval.* The proportion 15 : 16 gives the *minor second*, which is still more palpably painful.

Ex. 11. (at Pianof.)



(Dissonances.)

21. The INVERSION of an interval is obtained by *reversing the letters*, so that the lower tone becomes the upper.  As this merely involves the Octave-relation, it is evident from paragraph 6

that an interval and its inversion are practically identical.

All consonant intervals remain consonant after inversion, and dissonances remain dissonant. The complete table of Consonances and Dissonances is therefore as follows:

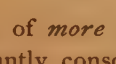
CONSONANCES { Perfect Octaves, and their inversions, perf. Unisons: Perfect Fifths, and their inversions, perf. Fourths; *1) Major Thirds, and their inversions, Minor Sixths; *1) Minor Thirds, and their inversions, Major Sixths.

DISSONANCES. { Major Seconds, and their inversions, Minor Sevenths; Minor Seconds, and their inversions, Major Sevenths; and also all Augm. and Dim. intervals, on account of their obliquity to the scale.

*1) Major and Minor 3rds and 6ths, being no longer *perfect* intervals, are distinguished as *Imperfect* Consonances.

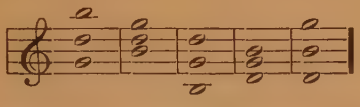
Chords.

(Mat. Mus. Comp. §§ 27—37.)

22. Chords are associations of *more than two* (comp. 15) tones, in exclusively or at least preponderantly consonant interval-relations. Giving first preference to the perfect 5th, as a matter of course, the skeleton of a chord erected upon the tone g (for example) would be, This is the proportion 2 : 3 (or 4 : 6, which will prove more convenient). The third tone, necessary to develop the "interval" into a complete "chord", must be in consonance with each and both of these tones, therefore the simplest proportion for the three tones together is 4 : 5 : 6, which mathematically determines what the *ear also* unhesitatingly sanctions, viz. the addition of the tone *B-natural*:  This is the primary three-tone chord-form and furnishes the incontestible model of all

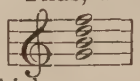
Primary or Fundamental Chord-structure, namely: any tone as given basis, with its Major third and perfect fifth.

23. Other, externally different, forms can be erected, in which again all the intervals are consonant. Thus:

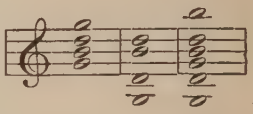
Ex. 12. 

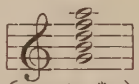
But these are all readily recognizable as modifications of the original form, *obtained solely by means of the Octave-relation*, which never alters the harmonic significance, but simply affects a more or less complete INVERSION of the chord.

24. No other forms than these can be constructed without marring the consonant condition of the chord; in other words, *consonant chords, or concords, are limited to three tones.* Still, the fundamental principle

of chord-structure here revealed may be extended, in order to give the chord a more copious form. Thus, the structure of ascending thirds may be extended to a new tone,  but this new tone (in this case *f*) must necessarily constitute a *dissonant interval* (7th) with the fundamental tone, for which reason chords of four tones will invariably be *dissonant chords or Discords*.

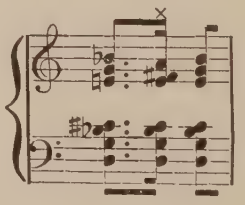
A three-tone chord with one or more duplicated tones, as (g-g-b-d, g-b-d-d, etc.) evidently does not belong to this species of genuine "4-tone" chords.



Still another upper third may be added, thus:  but the new tone (in this case *a*) gives rise to two additional dissonant intervals, viz. 7th with *b*, and 9th with *g* (see Ex. 6, note *3).

25. Dissonant chords are not only admitted, but even deemed necessary in music, on account of their *contrast* with consonant harmonies, and the peculiar quality of *activity* which their dissonances involve. But the following limitations are dictated by wisdom: firstly, as Discords are merely extended forms of the Concords, their application should be deferred until the relations and progressions of the primary three-tone forms have been thoroughly mastered; and secondly, the dissonant intervals must be introduced in moderate and judicious proportion to the consonances; hence, while 4-tone chords may be unexceptionable, those of 5 tones are very rare, and the addition of still more dissonances (as six or seven-tone chords) is obviously out of the question.

It is true that dissonances are often multiplied, so that occasionally even all seven letters of the scale are associated simultaneously,—for example, at ×,

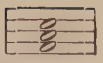
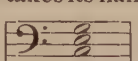


(MENDELSSOHN, op. 82.)

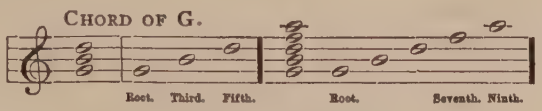
But such dissonant clusters are never "chords." Their demonstration will appear in due time.

26. The concise definition of a chord is then:

the combination of THREE (or FOUR, or FIVE) tones in THIRDS, or in inverted forms reducible to thirds (see 23).

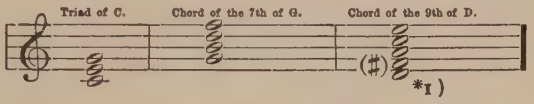
27. The structure of *thirds* is the *Fundamental* chord-form;  in THIS form the lowermost tone is the ROOT of the chord, from which the latter takes its name, according to the name of the letter or of the scale-step. Thus:  is the chord of *C*, or (in C-major) the *Tonic* chord, because the Root is C. The other tones (e and g) are called the THIRD and FIFTH of the chord, according to their interval-relations with the Root. Two additional tones would be called the SEVENTH and NINTH. Thus:

Ex. 13.



28. Three-tone chords are termed TRIADS;
Four-tone chords are termed Chords of the SEVENTH;
Five-tone chords are termed Chords of the NINTH. Thus:

Ex. 14.

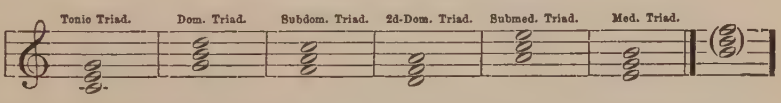


*1) Why the ear prefers F-sharp to F-natural in this case will shortly be deduced from the simple principles of chord-relation.

Relation of Triads within one Key.

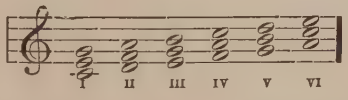
29. Any step of the diatonic scale (*excepting the Leading-tone*) may be a Root, and develop into a Triad by uniting with its Third and Fifth. And, as already stated, each chord derives its harmonic name *from the step of the scale which its Root occupies.* For illustration, in C-major:

Ex. 15.



For convenience, the Triads are also designated by Roman numerals, coinciding with the number of the step on which their Roots stand, and are named accordingly: The ONE, The TWO, The THREE, etc.

Ex. 16.



30. The relative importance of each of the six Triads of a Key corresponds exactly to that of the respective scale-step, and depends

upon the distance of its Root from the Tonic in perfect fifths;
or, upon its location in the "Natural" scale (Ex. 2).

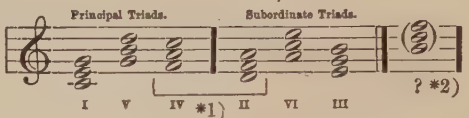
Assuming, as self-evident, that the Tonic Triad is of first and fundamental significance, the next in importance is the Dominant Triad, then the Subdominant Triad, and so on, precisely in the order of Ex. 15.

31. The Tonic Triad and its two nearest relatives, the Dom. and Subdom. Triads, are the PRINCIPAL chords of the Key (see 14), and represent

THE THREE ESSENTIAL ELEMENTS OF HARMONY,

among which the other three Triads (the Two, the Six, and the Three), called SUBORDINATE chords, are only interspersed for the sake of variety, contrast and embellishment.

Ex. 17.
C-Major.



*1) A very fine distinction in the relative importance of the IV and the II will be discussed later on.—*2) To the "Leading-tone Triad" no name or rank can be assigned at present; see later. From this a significant inference can be drawn in regard to the choice of f-natural instead of f-sharp for the Key of C (Ex. 2, note *1). F-natural can be a *Root* in that Key; f-sharp cannot. B, which cannot be a Root, is the last tone adopted in C-major.

32. These two classes of chords (Ex. 17) will be found, at the pianoforte, to differ in sound. The Principal Triads have a *major* Third and perfect Fifth, wherefore they are called Major Triads. On the contrary, the Subordinate Triads have a *minor* Third and perfect Fifth, and are termed Minor Triads. *This accidental difference in effect is only owing to the situation of the chords in their Key, and does not in any wise influence their movements or significance!* (Mat. Mus. Comp. §§ 48—51.)

33. Another demonstration of the formation of the diatonic major scale may be deduced from the foregoing paragraphs. Assuming 4 : 5 : 6 to be the simplest three-tone proportion, (22) and applying it to the Tonic (say C), the tones c-e-g convene as kernel of that Key. Applying it to the nearest perfect 5th relative of the Keynote (the Dominant, G), the result is g-b-d. Then arises the question, whether it shall be applied to the next relative of the Dominant (the *Second*-Dom., D) or to the *other* relative of the Tonic (the *Sub*-Dom., F)? The former gives d-F-SHARP-a; the latter F-NATURAL-a-c. According to this the scale of C may be

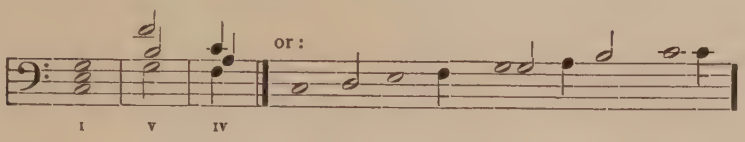
either I V
C—D—E—F-sharp—G—A—B—C—D—etc, (I—V—II),
II

or I V
C—D—E—F-natural—G—A—B—C—D—etc., (I—V—IV).
IV

The question is touched upon in Ex. 2, note *1) which see; and in Ex. 17, note *1. For the present, preference will be given to F-natural, and the IV, because F-sharp conflicts with the

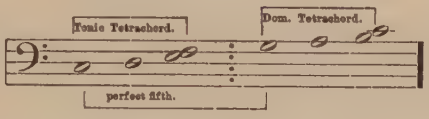
Keynote itself. Hence the formation of the C-scale is adopted as follows (the notation in 𝅝, 𝅗𝅥 and ♩ notes renders the illustration clear):

Ex. 18.



34. Still another peculiarity of the scale serves to demonstrate its natural formation, viz: it consists of two *precisely similar* series of four tones (the "Tetrachord" of Greek musical theory), each consisting of the spaces whole—whole—half, and separated by the interval of a perfect fifth. Thus:

Ex. 19.



This again confirms the fundamental significance of the perf. fifth-relation; and affords another clue to the preference given to F-natural instead of F-sharp in C-Major (the tetrachords thus being made *alike*).

Lesson 3.

A. Write the major Triad (as I) on every possible tone in the octave, adhering throughout to the *fundamental* form (27). **B.** Write the six Triads of the twelve diatonic scales, in the order of Ex. 17. **C.** Name, mentally, the I of every Key; the V of every Key; the IV; the II; the VI; the III. **D.** Find and play these chords at the PIANOFORTE.
(The practice of 4 and 5-tone chords is deferred till later.)

CHAPTER IV.

Rhythm and Melody.

(Mat. Mus. Comp. §§ 1—5; 9—13.)

35. The images of musical art, unlike the *stationary* creations of the arts of painting, architecture and sculpture, are *progressive;* as in the art of poetry, the impressions in music *succeed* each other by progressive motion. Therefore, *time* is absorbed in the expression of a musical thought, and it is the province of RHYTHM to define and regulate the divisions and subdivisions of this passage of time.

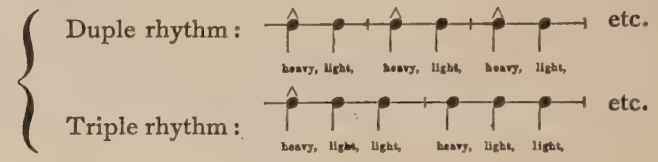
RULE I. The time is divided into ABSOLUTELY EQUAL units (Beats, Fractions of Beats, or Measures, as the case may be); i. e. the respective units are of exactly equal *duration* (like the divisions of a twelve-inch rule.)

RULE II. Though the units are alike in duration, they DIFFER IN FORCE;

i. e. some are heavy and others light (as certain lines on a 12-inch rule differ from others in length or heaviness).

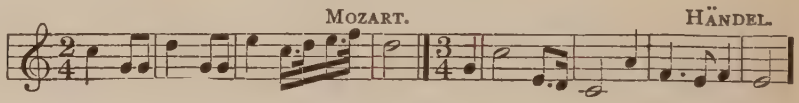
36. The primary units (or beats) are grouped, in conformity to these rules, in uniform Measures, of which there are but *two* fundamental species; either a succession of one heavy and one light beat, in regular alternation; or a succession of one heavy and *two* light beats, in irregular alternation. The former is called DUPLE time, or rhythm, or measure; the latter is called TRIPLE rhythm. *There are no other species.*

Ex. 20.



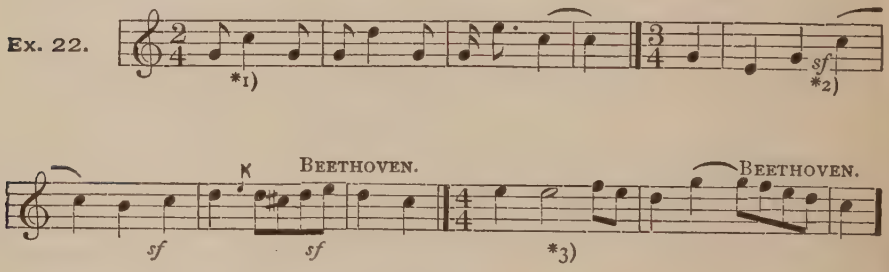
37. RULE III. The heavy beat (called *Accent*) should indicate the *beginning* of a Measure. If a heavy impression is created by any means at *any other* point in the measure, the rhythm is "IRREGULAR", though not necessarily "wrong". See later. For illustration:

Ex. 21.



Both perfectly regular, because the heaviest (longest) beat or tone stands in every case at the beginning of the measure.

Ex. 22.

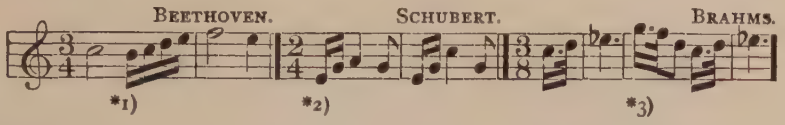


*1) Irregular, because the heaviest tone is where a *light* unit should stand.—*2) Irregular because of the *sf*, which transforms a light unit into a dynamically strong one.—*3) Like note *1).

38. RULE IV. The ofttimes necessary subdivision of beats into Fractions, and the coalition of beats or parts of beats into notes of greater value, (Ex. 22, note *3), must consequently be so effected that the heavy beats retain the *comparatively longer* tones; i. e. subdivisions must take place on

comparatively *lighter*, never on comparatively *heavier* beats, and vice versâ.

Ex. 23.

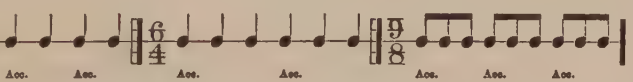


*1) Regular; 3rd (light) beat subdivided.—*2) Irregular, the *heavy* beat being so subdivided that the following (light) unit becomes more weighty. The measure seems to begin with the second eighth-beat.—*3) An unusual example of irreg. rhythm. Without its rhythmically definite accompaniment, it sounds like 3-4 time, thus:

39. Rule V. For these reasons, the repetition of a chord from an unaccented beat to an accented one (i. e. *over an accent*) gives rise to irregular rhythm, and should be avoided.

40. All larger measures than those which comprise but two or three beats, are called *compound*, and contain *as many accents as there are groups*. Thus:

Ex. 24. $\frac{4}{4}$ or $\frac{C}{C}$



The *upper* figure of the Time-signature always indicates whether the measure is simple or compound. In the former case it is 2 or 3 $\left(\frac{2}{2}, \frac{2}{4}, \frac{3}{4}, \frac{3}{8}\right.$ etc.$\left.\right)$; in the latter case, 4, 6, 9 or 12, $\left(\frac{4}{4}, \frac{4}{8}, \frac{6}{8}, \frac{6}{4}, \frac{9}{4}, \frac{9}{8}, \frac{9}{16}\right.$ etc.$\left.\right)$

Melody.

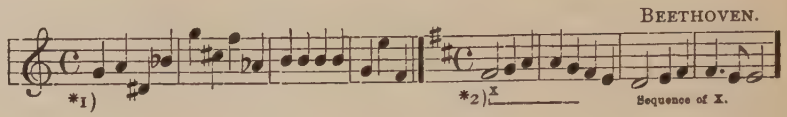
41. Any succession of single tones is a Melody. Its quality depends upon the *choice* of the tones, and their *rhythm* or time-values

Melody is a manifestation of tone-relations in horizontal or *progressive* association, whereas "Harmony" associates tones vertically or *simultaneously;* the two partly similar processes are only subject to the same natural laws in a limited sense. The principles of Harmony, in the broad sense of Chord-succession, are very distinct; those of Melody far more vague. Harmony is the substratum of all music, and its few sturdy laws fix themselves upon the mind easily, and so firmly, that their fulfilment soon becomes almost mechanical, and indeed is often intuitive; but Melody is guided by more veiled and subtle conditions, which can hardly be reduced to a system, but must be left largely to the individual "talent", native sagacity, or acquired skill of the composer. Largely—but not altogether: As far as the natural decrees of harmonic combination and succession influence and determine the ruling conditions of Melody, the latter *can be* reduced to apprehensible form, and should be faithfully observed until essentially fastened on the mind.

42. Rule I. The general requirements of *good* Melody are: *a.* smooth and natural undulation (to the exclusion of awkward interval-suc-

cessions); *b.* rhythmic variety; *c.* definite and symmetrical delineation (including sufficient Repetitions of the melodic figures, on the *same* steps, and, better still, on *other* steps, as Sequences). For illustration:

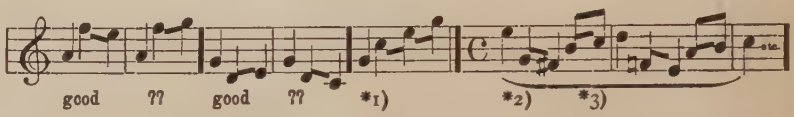
Ex. 25.



*1) An example of bad melody, in which *all* the above-named requirements are wanting. *2) A good melody, fulfilling all the given conditions. See Appendix B, 1, 2, 4, 8, 9.

43. RULE II. After a *wide* leap (beyond the interval of a 3rd), the *direction* of the melody is generally changed. Thus:

Ex. 26.

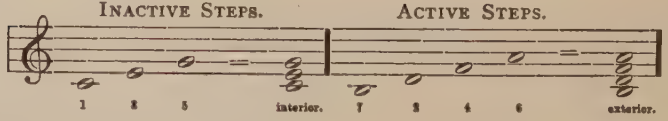


*1) Good, because the tones conform successively to a *harmonic structure* (the Triad I of C).—*2) Good, on account of the confirmation (and ultimate equibalance) *by Sequence* in the following measure.—*3) Such a change in *rhythm* frequently cancels this melodic requirement.

44. The seven steps of every scale are divided into two classes: ACTIVE (or leading) tones, which possess a natural inclination to progress, upward or downward, into other tones; and INACTIVE (or central) tones, which have no melodic tendency, but represent the aim of the active tones. The Inactive tones are the 1st, 3rd, and 5th scale-steps, i. e. the *Tonic* or stationary centre of the whole Key, and its two harmonic associates, which naturally share this central quality with it. They are *interior* tones, within the circle of rest. The Active tones are the 7th, 6th, 4th and 2d steps, or, in other words

those exterior steps which lie not within but *without* the inner circle of harmonic repose, and which therefore strive to gain (or regain) the condition of rest. For illustration:

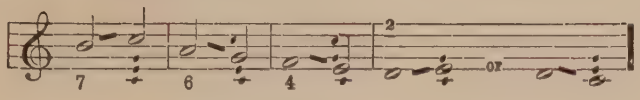
Ex. 27.



45. The DIRECTION of each active step is defined by its proximity to an inactive step, *each being attracted most strongly by that inactive tone which lies nearest.* Hence the *7th step* progresses *upward* to the Tonic; the *6th step downward* to the Dominant; the *4th step downward* to the Mediant; and the 2d step either upward or downward, to the Tonic or

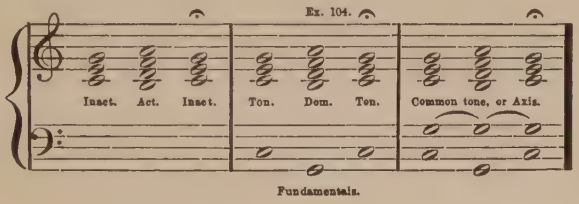
Mediant, from both of which it is *equally* distant. Thus:

Ex. 28.



46. This duality of melodic quality in a Key,—the opposed positive and negative conditions of animation and repose,—underlies all harmonic and melodic life. Like the coil and recoil of the hairspring of a watch, the melodic and harmonic factors swing to and fro between these two groups, with more or less regularity. And need one wonder that their fundamental tones are respectively *Tonic and Dominant*, exemplifying the supremacy of the perfect fifth-relation, and further confirming the prevalence of the Dominant, as it is the common-tone, or connecting link, of the two groups? Exemplified in concrete form:

Ex. 29.



47. Rule III. The natural tendencies of the Active steps should be respected, especially in prominent melodic voices.

A multitude of verifications of this important rule will be found in all good melodies.

Exceptions will of course also be encountered; they are due to conditions which will be explained later on. The pupil is urged to scan Lesson 10.

See Appendix B, 5, 6.

Lesson 4.

A. What is the province of Rhythm? In what respect do its units agree? In what do they differ? How many species of Rhythm are there? Their names? What is the essential characteristic of each species? When is a measure rhythmically regular? Give example. When irregular? Give example. Where is the repetition of a chord objectionable? What are Compound measures? How many accents have they? What is Melody?

B. Write out Ex. 28 in every major Key. **C.** Write out Ex. 29 in every major Key.

CHAPTER V.

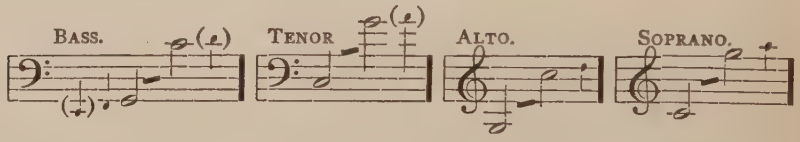
Parts (Voices). Erection of Chords.

(Mat. Mus. Comp. §§ 38—45.)

48. All music is based upon *Chords*, which succeed each other in *Harmony*, as single Tones succeed each other in *Melody*. These Chord-successions (Chord-combinations or Chord-progressions) are effectuated by means of a number of *simultaneous melodic parts* or VOICES, each of which assumes one of the chord-tones, and serves, in conjunction with the rest of the voices, to unite the chords in horizontal order, interval by interval. See Ex. 35.

49. The number of parts or voices generally employed is four. The following example indicates their respective *names*, their average *compass*, and their *notation:*

Ex. 30.



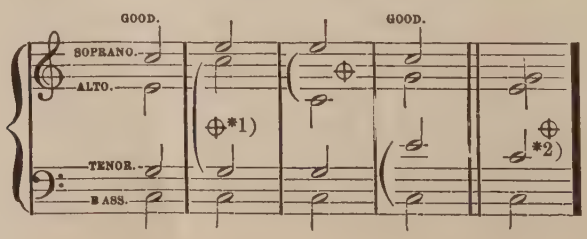
Bass and Tenor (Male voices) are written together on the F-staff, and distinguished by turning the stems of their notes respectively down and up; Alto and Soprano (Female voices) both on the G-staff, stems respectively down and up. Ex. 31. Bass and Alto, the lowest of each class, are called *parallel* parts or voices; Tenor and Soprano likewise. Bass and Soprano are *outer* voices, Tenor and Alto *inner* voices.

50. The distribution of the chord-tones among the 4 parts or voices is called *erecting* the chord.

RULE I. The parts must not *cross*.

RULE II. The Alto should never lie *more than an octave* from either of its two neighbors (i. e. Soprano or Tenor); but the lower adjacent voices, Bass and Tenor, are not limited by this rule. For illustration:

Ex. 31.
I of C.



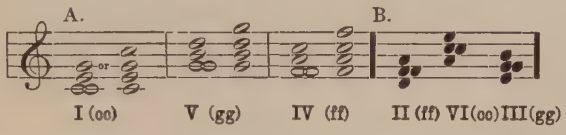
*1) This sign ⊕ will be used to indicate bad (wrong) examples. Chord 2 is wrong, because the Alto and Tenor are more than an octave apart. In chord 3, Alto and Soprano are too far apart.—*2) According to the notation, the Soprano note *e* lies *below* the Alto note *g*. This is forbidden by Rule I.

51. In 4-part harmony, all Triads (3-tone chords) have to be enlarged by *duplicating* one of their tones (as already seen in 24).

RULE. The best tones to double are the Principal steps of the scale, i. e. *tonic, dominant* and *subdominant*, especially when they are *roots*.

Thus, in C-major, the tones *c*, *g* or *f*:

Ex. 32.
C-Major.



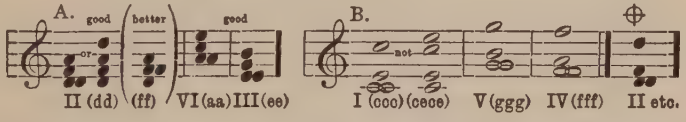
In other words: double the Root of a Principal Triad, and, double the Third of a Subordinate Triad.

And, by inference: never double the *Fifth* of *any* Triad.

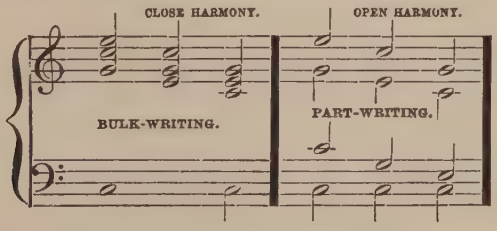
52. Exceptions. It is *also* possible to double the *Root* of any *Subordinate* Triad, because, though a subordinate step of the scale, it is still a Chord-Root. Ex. 33 a.

And it is possible to omit the 5th of a *Principal* Triad (never that of a Subord. Triad), in which case its Root is *tripled*. Ex. 33 b.

Ex. 33.
C-Major.



53. When the chord is so erected that the three upper parts or voices lie as close together as the chord will permit, the harmony is said to be *Close*, or compact; When they are separated by one or more intermediate chord-intervals, the harmony is *Open, or dispersed.*



Close harmony is most frequently used in instrumental music, and may be employed by the pupil in the majority of his sight-exercises at the pianoforte. Open harmony is the superior kind, and chiefly used in vocal music; *it will be almost exclusively employed in all the written exercises of this book.*

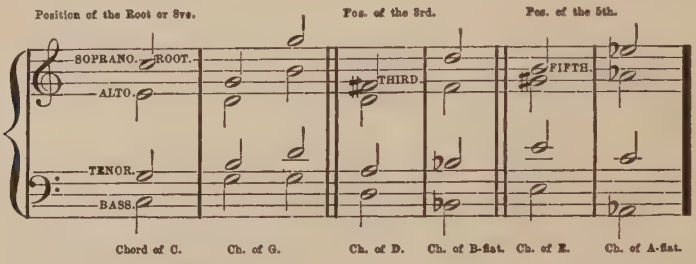
54. The paramount importance of the *uppermost voice* (the Soprano) as that upon which the leading of the MELODY PROPER devolves, renders it necessary to distinguish its various grades of effect and influence, according to the *interval of the Chord* which is assigned to it. For this purpose the term "Position" has been adopted, and is applied as follows:

"Position of the Root" or "Octave," signifies that the *Root* (or its Octave, which is the same thing) lies in the *Soprano;*

"Position of the Third"=the *Third of the chord* in the *Soprano;*

"Position of the Fifth"=the *Fifth of the chord* in *Soprano.* For illustration:

Ex. 34.



Lesson 5.

A. Erect (in writing) the I of every Major Key in as many forms as possible, first in the Pos. of the Root, then Pos. of the 3rd, and then Pos. of the 5th (Ex. 34), but *always with the* ROOT IN BASS (fundamental form). Observe the rules of duplication and omission illustrated in Ex. 32 A, and Ex. 33 B; and avoid the errors noted in Ex. 31, chords 2, 3 and 5.—**B.** Erect the VI of every Major Key in its 3 Positions successively (but *Root in Bass*), observing *both* rules of duplication (Ex. 32 B; Ex. 33 A).—Find and play these erections at the PIANOFORTE (without notes).

CHAPTER VI.

Rules of Part-Writing.

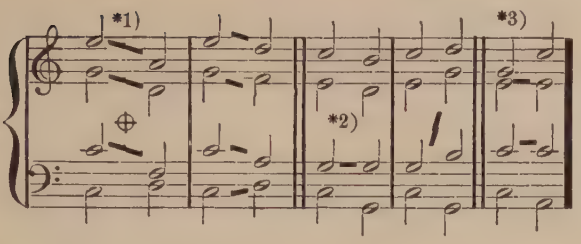
(Mat. Mus. Comp. §§ 46—47.)

55. In leading the parts or voices through a series of chords, the following rules must be strictly observed (by the beginner):

RULE I. The parts, each and all, should progress as *evenly* (*horizontally*) as possible.

Wide skips should be avoided, and *diatonic* movement (i. e. along the scale) preferred. A tone which is common to two successive chords is *generally* retained in the same part. For example:

Ex. 35.



N. B. Each "measure" is an example by itself, without any connection with the next!

*1) This is an aggravated example of objectionable voice-progression; Soprano, Alto and Tenor all make a wide leap, instead of progressing more evenly as in the following measure.— *2) Here the common tone *g* remains where it was (in Tenor); the following measure, though admissible, is not quite as good.— *3) The skip in the Soprano (*g*—*c*) is justified by the extreme smoothness of the other voices.

This rule of **SMOOTH VOICE-PROGRESSION** *is the most essential and general law of harmonic succession.*

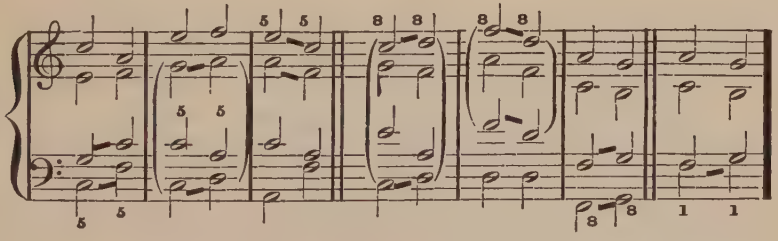
56. Rule II. (Double rule.)

Successive *perfect fifths*, **and successive** *octaves* **[or unisons] in** *any pair of parts*, **in parallel direction, are prohibited.**

Successive perfect 5ths *sound badly*, in the majority of cases.

Successive 8ves are forbidden in *part*-writing, because they reduce the number of tone-lines (voices) and create a blundering impression. For illustration:

Ex. 36. all ⊕.



It is not without significance, that almost all of the above erroneous progressions are chiefly due to the violation of other simple conditions,— especially those of Rule I. In measure 1, Tenor and Bass progress parallel from one perf. 5th to another; but at the same time the Tenor makes an unnecessary leap. — Measure 2: Bass and Alto run in parallel perf. 5ths; at the same time the *a* in Alto is a false duplication of the 5th of the Triad (51).— Measure 4: Soprano and Bass progress parallel from one octave (*c*—*c*) to another (*d*—*d*); at the same time, the Tenor makes an unnecessary leap.— Measure 5: Tenor and Soprano run in parallel octaves; at the same time the Fifth (*a*) of the second chord is omitted.— Last measure: consecutive unisons in Bass and Tenor. — N. B. It must be remembered that successive 5ths and 8ves are wrong in ANY two parts, but only when they follow each other in the SAME pair! In Ex. 37, meas. 1, the perf. 5th in *Tenor and Alto* (g—d) does not make "parallels" with the next perf. 5th in *Bass and Tenor* (c—g).

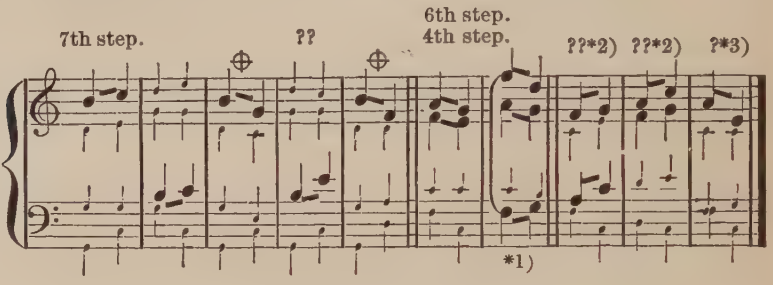
57. As these erroneous parallels are often provoked by leading the voices all in the *same direction* (upward or downward), it is wise to carry the *upper parts in contrary direction to the Bass*, when convenient.

58. RULE III.

Allow the *leading-tone to ascend to the tonic*, if practicable, in whichever part it lies.

And respect the natural DOWNWARD tendency of the SIXTH AND FOURTH STEPS, especially in Soprano. (Compare 47). Thus:

Ex. 37. C-MAJOR.



*1) When the 4th step is doubled, as here, it is liable to *ascend* in *one* of the parts (see also the Tenor in the last measure). The CORRECT PROGRESSION however (downward) is given to the most prominent or *most melodious* voice. (In this case the Soprano descends, correctly; in the following measure its ascent is dubious; in a *middle* voice it is usually immaterial).—*2) Compare measure 6.—*3) An unnecessary skip in Soprano.

59.

A GENERAL EXCEPTION to all these rules of Part-writing is applicable (and often almost obligatory) *in case a chord is simply* REPEATED, instead of being exchanged for a new chord.

Hence, even wide skips are not objectionable; the natural tendency of active tones is not urgent; and reiterations of the *same* 5th or 8ve are unobjectionable, } during the *Repetition* of a Chord.

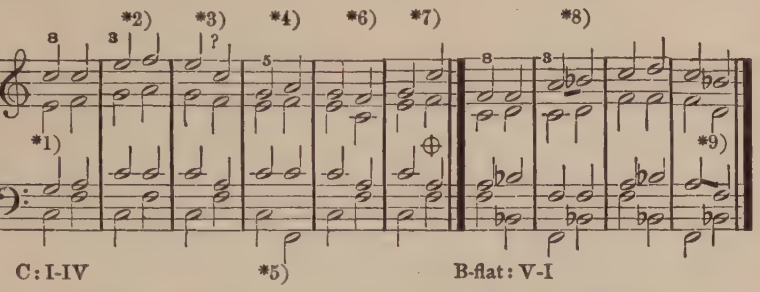
Lesson 6.

N. B. In all of the following studies the Soprano-part *alone* may be added to the Bass, throughout, before filling in the Alto and Tenor.

Connect (in writing) the I with the V in C-major, in as many ways as possible—but always with Root in Bass—according to the foregoing rules. See model, below.— Connect the I with the IV in the Keys of G, E, and B-major.— Connect the V with the I in F, B-flat and G-flat major (with especial vigilance in regard to the first clause of Rule III,—58).— Connect the IV with the I in D, A-flat and E-major (observing the second clause of Rule III).— Find and

play these chord-successions at the PIANOFORTE in close harmony (53), i. e. the three upper parts in the right hand, and the Bass alone in the left.

MODEL. EX. 38.



*1) The choice of Triads determines the Bass-progression; here c—f, because I—IV of C. The Soprano takes first the *Root* or 8ve (c) by way of systematizing the exercise; its progression is a repetition *c—c*, as *no other tone of the 2d chord* (f,a,c,) lies as near as this. The same is true of the Alto (*e—f*) and the Tenor moves with similar ease and smoothness from *g* to *a*.—*2) Soprano starts here from the *Third* (*e*) and moves to *f*, the nearest tone.—*3) The leap from *e* to *c* is doubtful.—*4) Soprano starts from the *Fifth* (*g*), and reaches either *a* or *f* (note *6) smoothly, while the leap to *c* (note *7) is wrong, making parallel perfect 5ths with the Bass.—*5) The Bass may rise or fall.—*6) and 7), explained in *4).—*8) The *a* is Leading-tone, and must, as Soprano-tone, ascend to *b-flat*.—*9) In an INNER voice this descent of the Leading-tone is not distinctly noticeable and therefore not strictly forbidden.

(Mat. Mus. Comp. §§ 57, 58; Examples 47—52, 62, 63.)

CHAPTER VII.

Perfect Cadence and Phrase.

THE THREE PRINCIPAL TRIADS.

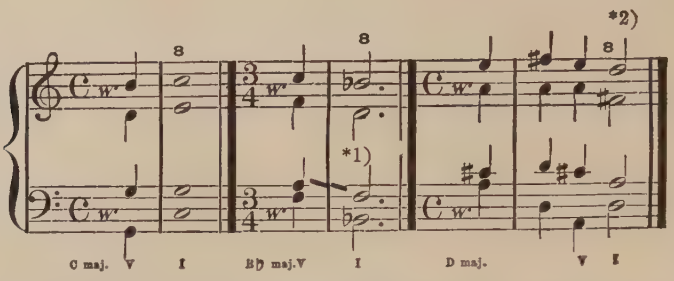
60. The PHRASE is the smallest musical form. It is usually 4 measures in length, more rarely 2 measures (Small Phrase), or 8 measures (Large Phrase). The irregular Phrase (of 3, 5, 6, 7 or 9 measures) will not be considered at present.

61. A complete Phrase (independent of others) begins with the TONIC TRIAD, on either a *heavy or a light beat*, and in *any Soprano-position*, at option. It closes with the PERFECT CADENCE (62) on an *accented beat* of the 4th, (2d, or 8th) measure, as the case may be. (It has *no other interruption*, in its course, and is *thus distinguished from all larger forms*.)

62. The Perfect Cadence consists of the TONIC TRIAD, with Root in Bass *and in Soprano*, upon an ACCENTED beat, and preceded by the DOM-

INANT Triad (Root in Bass, but *Soprano optional.*) Thus:

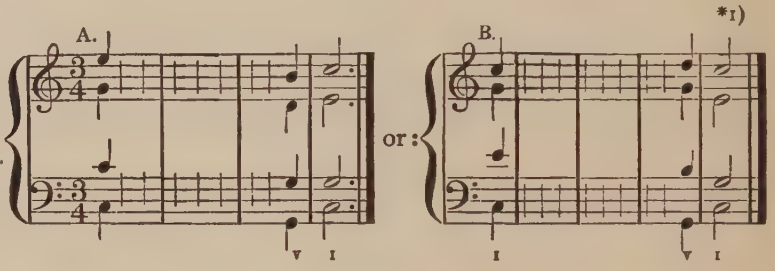
Ex. 39.



*1) See Ex. 38, *9).—*2) The Cadence-chord (I) may fall upon *any* accented beat, in compound measure.

63. The skeleton of a 4-measure Phrase in Triple-time might then be as follows:

Ex. 40. C-MAJOR.



*1) The light beat ("Upbeat") upon which this Phrase begins, is called a "preliminary beat", and must be subtracted from the Cadence measure. Therefore the final half-note has no dot, as it had in the preceding case.

64. The vacant beats, marked | | |, may be supplied with chords (at present only *Principal Triads*) in a great variety of successions, whereby the following rules of chord-progression must be observed:

RULE 1. The Tonic Triad can progress in all directions, i. e. either into the V or IV.

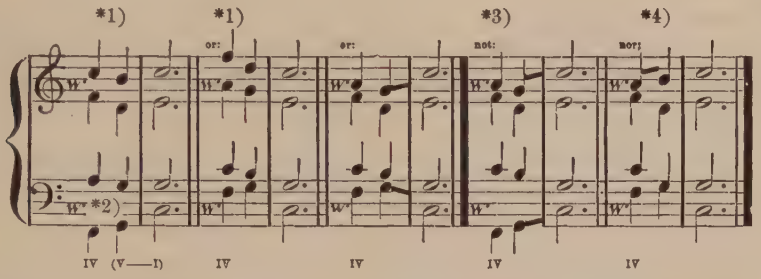
RULE 2. The IV (Subdom. Triad) can progress in all directions, i. e. either into the I or V.

RULE 3. The V (Dom. Triad) CAN ONLY PROGRESS LEGITIMATELY INTO THE I. The succession V–IV is *very irregular*, because the Dom. chords tend almost irresistibly towards those of the Tonic. Therefore the progression V–IV must be avoided for the present. But the movements of the I and IV are optional.

RULE 4. Any chord (i. e. Bass tone) may be *repeated*, subject to paragraph 39, Rule V,—i. e. *after* any accent, but not *over* an accent. (Mat. Mus. Comp. §§ 52, 54, 66, 81.)

65. The first experiments can best be made in retrograde order, from the Cadence backward. Thus, the first cadence-chord (V) may be preceded BY THE IV (64, Rule II):

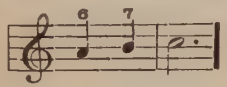
Ex. 41. C-MAJOR.



*1) These examples will be seen to differ from each other chiefly in the choice of SOPRANO, or MELODY. Compare Preface, I.

*2) This chord-succession (IV—V) which was not manipulated in Lesson 6, involves more than ordinary difficulties, because there is *no common tone!* More than usual care must therefore be taken in this and *all similar* cases (of so-called FOREIGN PROGRESSION), to avoid *wide skips*, and *successive 5ths and 8ves*. *Lead the 3 upper voices downward.*

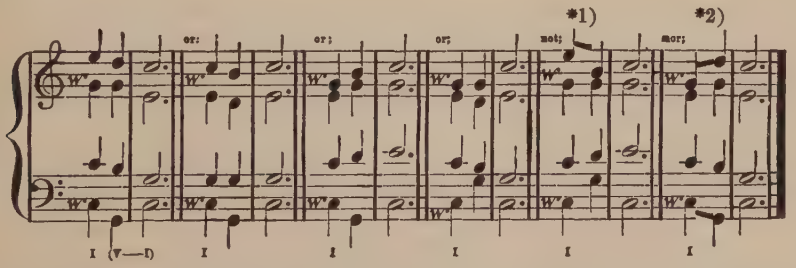
*3) When the Bass *ascends* from g to c, it makes (in this case) *parallel* 8ves with the g—c in Soprano. Compare the measure before, which is correct, because the progressions (in Soprano and Bass) run *contrary*.—*4) This Soprano-succession (a—b), though it appears to be more natural than the preceding measure, and is very tempting, must nevertheless be carefully avoided at present. The ascending 6th step (a), forbidden in 58, 2d clause, is nowhere more unmelodious than in the Foreign Progression IV—V; besides which, it always gives rise to awkward conditions in the other voices (here the skip from *c* to *g* in the Tenor, which *does not* remove the impression of parallel 5ths with the *d* in Alto). Therefore, SHUN THIS MELODY



especially at the Cadence. See Appendix B, 6.

66. Or, the first Cadence-chord (V) may be preceeded BY THE I (64, Rule I):

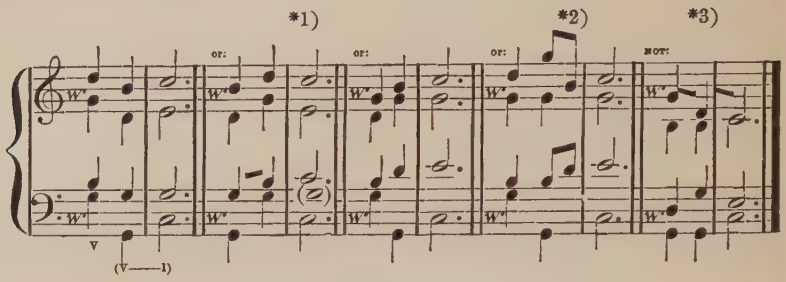
Ex. 42.



*1) Not absolutely wrong, but better not to *leap upon the Leading-tone* in this way. See 55, Rule 1.—*2) Successive 5ths (Soprano and Bass) in *contrary* direction. This is far worse than Ex. 41, No. 3, because *Fifths are always more sensitive than 8ves*, and objectionable even in *opposite* motion.

67. Or, the Cadence may be preceded by THE V ITSELF, involving an admissible repetition (64, Rule IV); see 59:

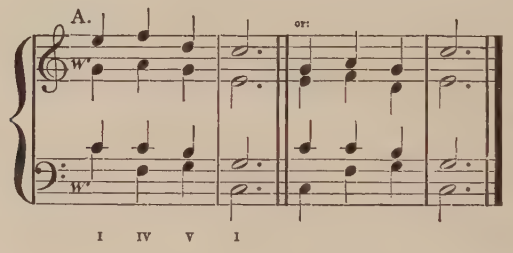
Ex. 43.



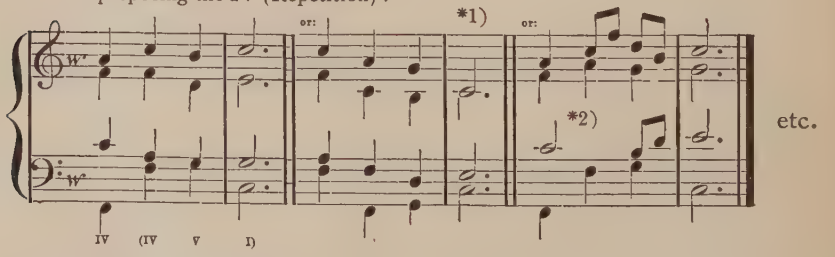
*1) Here the Leading-tone, in Tenor, must progress regularly, upward into the Tonic, because it is preceded by a *lower* tone (g) which gives it an additional impetus upward. The exception given in Ex. 38, note *9, is only available when the Leading-tone is introduced from a *higher* tone!—*2) See 38, Rule IV. Nowhere in the Phrase are subdivided beats more effective or appropriate than just before the Cadence-measure, which gains weight and emphasis by the contrast.—*3) Melodic progression faulty. See Ex. 26, meas. 4.

68. In the same manner, the *next preceding* chord may be determined. Thus, using any of the formulae in Ex. 41, (IV–V–$\hat{I}$) and preposing the I:

Ex. 44.



B. preposing the IV (Repetition):

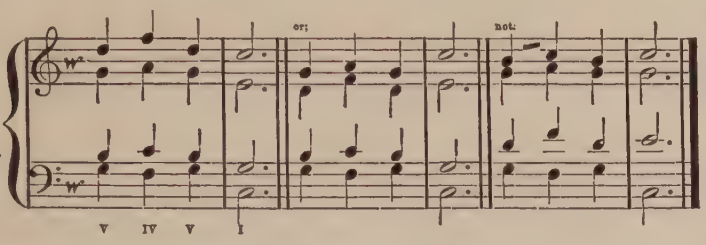


*1) An unusual (and not recommendable) melodic succession. The *g* in Sopr. *must* descend to *c*, in order to avoid *parallel* 8ves with Bass.—*2) See Ex. 43, note *2). On the second beat, the Tenor, in holding its *c* quietly, *casually* doubles the Fifth (*c* in Sopr.). This is justifiable. See 55, last clause.

69. The other Prin. Triad (the V) should not be used before this Cadence formula (thus: V-IV-V-I) because the V will not readily precede the IV. See 64, Rule III. It would sound thus:

Ex. 45.

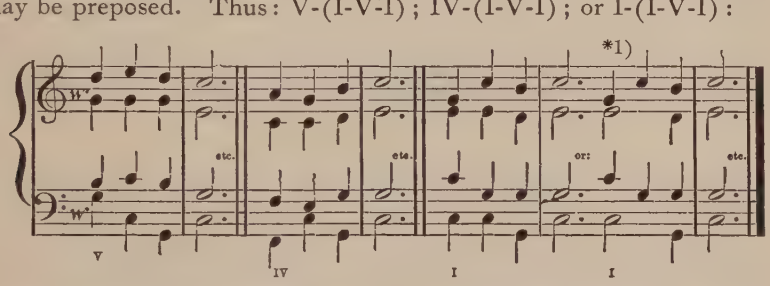
at pianof.



The irregularity is justified to a certain extent by *turning back immediately* into the V (thus: V-IV-V) so that the IV appears to be but an *interpolated* chord. The last two measures, above, are very objectionable, because *c*, as fifth of the IV, does not sound enough like the *Tonic* of C to satisfy the progression of the Leading-tone in the Soprano. This must be tested by ear.

70. Adopting the formula of Ex. 42 (I-V-$\hat{I}$), *any* of the three Prin. Triads may be preposed. Thus: V-(I-V-I); IV-(I-V-I); or I-(I-V-I):

Ex. 46.



*1) This only differs from the preceding measure in substituting a half-note in Alto and Bass for the two quarter-notes. *Such diversity of Rhythm is very desirable!* But observe 38, Rule IV.

71. Adopting the formula of Ex. 43 (V-V-$\hat{I}$), *any* of the 3 Prin. Triads may be preposed. Thus: I-(V-V-I); IV-(V-V-I); or V-(V-V-I). These are left to the pupil, who will also pursue this system of retrograde experiments one or two chords farther. It has already become evident that the possibilities multiply at every new chord, and that they must ultimately become innumerable.

Lesson 7.

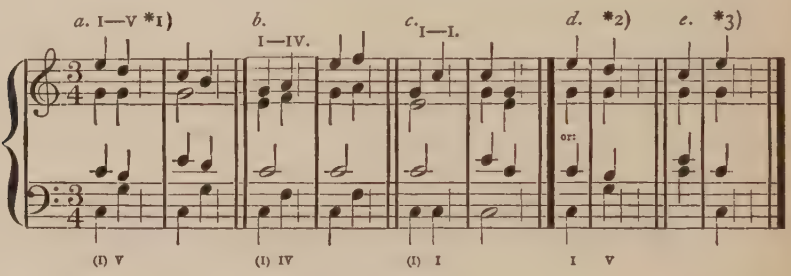
A. Write out the chords given in 71, in the manner of Exs. 44 and 46. (See Ex. 41, note *1)—Write out the Cadence-formulae IV-V-$\hat{I}$; I-V-$\hat{I}$; IV-V-V-$\hat{I}$; IV-I-V-$\hat{I}$; I-I-V-$\hat{I}$; and V-V-V-$\hat{I}$ in the Keys of G, F, A, E-flat, B and D-flat respectively (i. e. one in each Key), in 3-4 time, according to the foregoing examples.—**B.** Take the formulae of Ex. 44, and *place one more Prin. Triad before them, at the keyboard.*

CHAPTER VIII.

Principal Triads. Continued.

72. The next experiments will be made in *progressive* order (comp. 65), at the beginning of the Phrase. As stated in 61, the independent Phrase begins with the I. As this can progress either into the V or IV (64, Rule I), or into a repetition of itself, it follows that the choice of the second chord in the Phrase is optional. Thus (in 3-4 time):

Ex. 47.



*1) Of the 3 initial progressions here given (*a*, *b*, *c*), I-V IS THE BEST, for reasons implied by 30, last clause. Hence, the majority of Phrases begin in this manner.—*2) All the preceding measures may also be shifted to these beats, in case the Phrase is to begin on a light beat (Ex. 40, a and b).—*3) This apparent violation of 64, Rule IV, (repetition of a chord over, or *into*, an accent) is always permitted *at the beginning* of a Phrase.

73. The addition of further chords is effected as before, and is subject only to the rules of 64. Thus, the formula $\hat{I}$–V (Ex. 47 a, the I accented) may be extended to 3 or 4 Triads as follows: $\hat{I}$–V–I; I–V–V; (I–$\overline{\text{V–IV}}$⊕); $\hat{I}$–V–I | IV; I–V–I | V; I–V–V | I; (I–V–$\overline{\text{I | I}}$⊕); and so on.

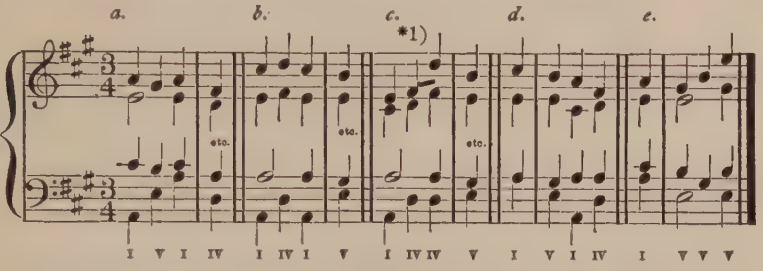
74. The formula $\hat{I}$–IV (Ex. 47 b) may be extended to $\hat{I}$–IV–I; I–IV–V; I–IV–IV; $\hat{I}$–IV–I | V; (I–IV–I | IV?) *1); I–IV–V | I; (I–IV–$\overline{\text{V | IV}}$⊕); (I–IV–$\overline{\text{V | V}}$⊕); I–IV–IV | V; I–IV–IV | I; and so on.

*1) Doubtful, because the DOMINANT is too long absent. Comp. Ex. 47, note *1). The paramount importance of *this* chord must not be forgotten.

75. The formulae I | $\hat{V}$ and I | $\hat{IV}$ (Ex. 47 d, the I unaccented) may be extended to I | $\hat{V}$–I; I | V–V; I | V–I–IV | ; I | V–I–V | ; I | V–I–I | ;

I | V–V–V | ; I | V–V–I; (I | V–V–IV | ⊕); (I | V–IV–V | ? see Ex. 45); I | IV–I–V; I | IV–V–V; I | IV–IV–V; I | IV–V–I; and so on. A few of these are exhibited below, in different melodic forms:

Ex. 48. A-MAJOR.



*1) This wide skip (f-sharp—d) is justified by chord-repetition. See 59; and 43.

Lesson 8.

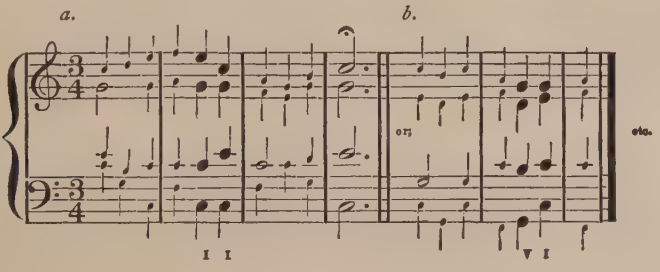
A. Write out, as before, all the initial-formulae given in 73, in G-major.—**B.** Write out the formulae given in 74, in B-flat major.—**C.** Write out the formulae of 75, in E-major.—**D.** Find and play these formulae at the PIANOF. in close harmony (53), in different Keys.

CHAPTER IX.

Principal Triads. Continued.

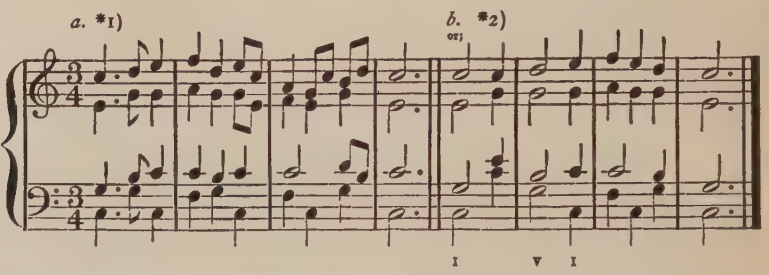
76. It only remains, now, to apply the larger formulae of Lessons 7 and 8 to the phrase-skeletons given in Ex. 40, and determine the harmony for the beats still vacant, as before, in order to complete the Phrase. For illustration: beginning with Î–V–I | IV—, and closing with —IV–I–V | Î, the intermediate harmony might be:

Ex. 49. C-MAJOR.



Or, with rhythmic modifications (whereby the number of chords may vary):

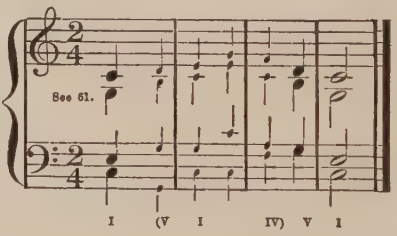
Ex. 50.



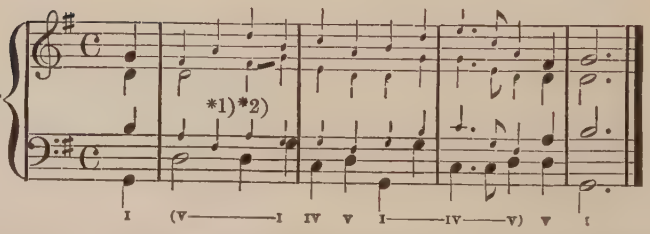
*1) The succession of chords is here identical with Ex. 49 b; only the rhythmic form is modified.—*2) This example illustrates that it is not necessary for *each beat to be clothed with a separate chord*, but that one chord may answer for two or more successive beats, in *mute repetition*. It is the uneven rhythmic conditions thus produced to which 38, Rule IV, refers.

77. This harmonic process is applied to Phrases in DUPLE-TIME (2-4, 4-4) in precisely the same manner, only excepting that the altered rhythmic relation of the beats affects the *location of* REPETITIONS (39, Rule V). Thus: I-V | I, or I-IV | V, but not I-V | V, nor I-IV | IV, etc., etc. For example:

Ex. 51.
C-MAJOR.



G-MAJOR.



*1) Here there is a chord-repetition from the 2d beat to the 3rd in Duple-time, i. e. *over into an accent* (the 3rd beat being heavy, Ex. 24, No. 1). This would be as irregular as Ex. 22, note *3), were it not that the chord *commenced upon the 1st (or heaviest) beat.* Hence the repetition, taken as a whole, does not run into or past a *comparatively heavier* beat!—*2) The Leading-tone (f-sharp) in Alto must *ascend*, even at the cost of the tone *d*. See Ex. 43, note *1).

Lesson 9.

A. Write a number of complete 4-measure phrases, in different major keys, in $\frac{3}{4}$ time, imitating the style of Exs. 49 and 50.

B. Construct phrases in other major keys, in $\frac{2}{4}$, $\frac{4}{4}$ and $\frac{6}{8}$ time. Use chord-repetition freely, and avoid too uniform rhythm.

CHAPTER X.

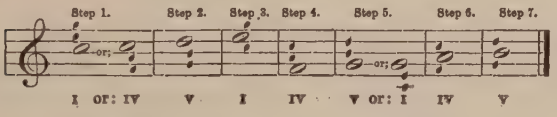
Harmonizing of Melodies.

78. As stated in 41 (which review), Harmony or Chord-succession is the substratum of all music; *it is the source from which all melody is derived* (be it with or without direct and conscious intent). Hence, the system adopted in the above Exercises, of constructing Phrases upon the basis of PRIMARY CHORD-SUCCESSION, is obviously the most natural and correct one. Nevertheless, the process is often reversed, not only in framing exercises for the pupils' guidance, but especially in the actual practice of Composition (when the observance of harmonic conditions has become, so to speak, automatic).

79. In working out a Phrase *from the Melody* (as Soprano) *downward* (i. e. in harmonizing a given Melody), the following facts must be recalled: The melody will not contain (at present) any other tones than the 7 STEPS of its Key. Of these,

the 1st, 3rd and 5th scale-steps belong to the I of the Key;
the 5th, 7th and 2d scale-steps belong to the V; and
the 4th, 6th and 1st scale-steps belong to the IV. Thus:

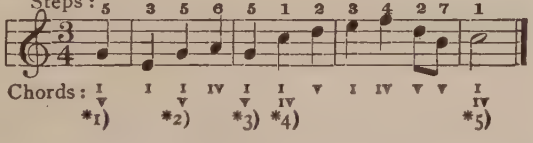
Ex. 52. C-MAJOR.



SEE ALSO EX. 18.

80. The Tonic and Dominant tones (steps 1 and 5) each belong, as is seen, to *two different Prin. Triads*, while each of the other steps represents but one. The choice between the two chords, at these points, will be dictated by the Rules of 64, and other familiar established principles. For example, applying Ex. 52 to the following given melody:

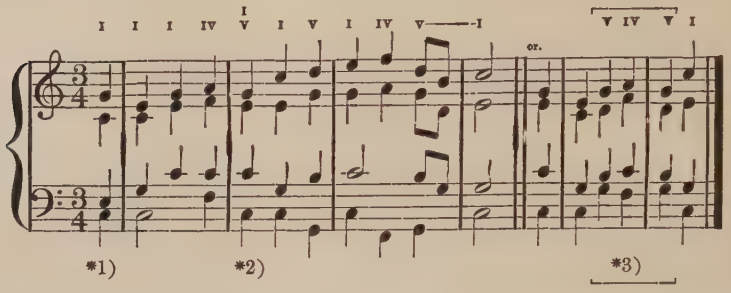
Ex. 53. C-MAJOR.



*1) Of these two chords, the I must be chosen (61).—*2) The choice falls upon the I; the V could hardly progress into the IV of the next beat (64, Rule III. But see Ex. 45).—*3) May be either I or V, because the following beat (see *4), will be the I.—*4) The IV is not possible, as it would give rise to successive 5ths (Sopr. and Bass) with the following V.—*5) The IV is canceled by 62.

81. The Chords (and Bass-part) will therefore stand as follows:

Ex. 54.

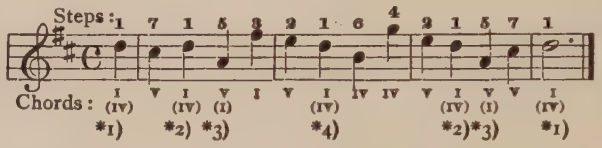


etc.

*1) Ex. 47, note *3).—*2) The V might be regarded as preferable here, on the grounds of 74, note *1). —*3) Ex. 45.

82. Another illustration, in Duple-time:

Ex. 55. D-Major.

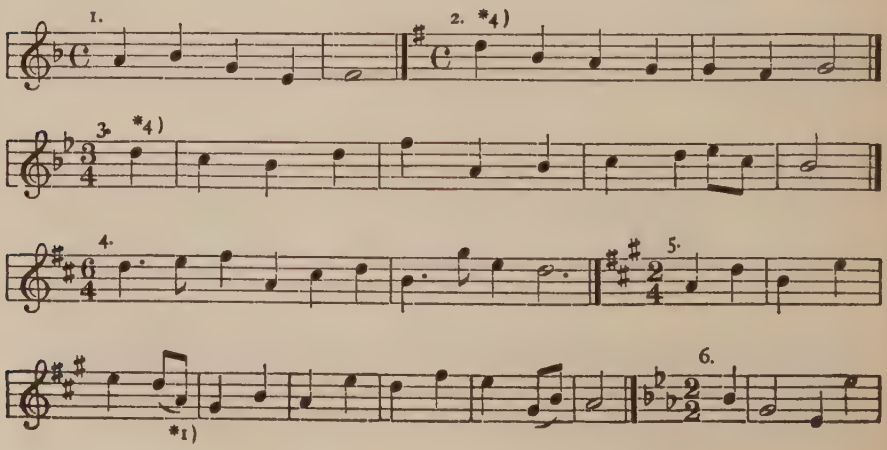


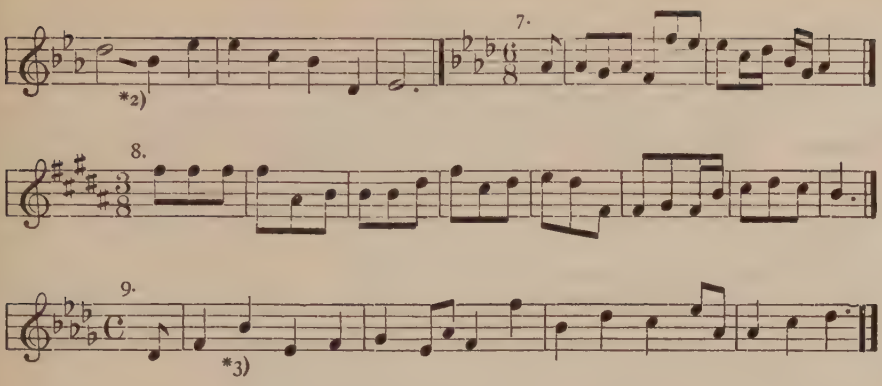
The Triads in parenthesis are canceled.

*1) Must be the I (61).—*2) The IV cannot follow the V.—*3) The I cannot be repeated from the 2d beat into the accented 3rd beat.—*4) The IV cannot follow the V, nor be repeated from this beat into the next.

Lesson 10.

A. Play Ex. 55 at the PIANOFORTE, in complete close harmony. **B.** Harmonize the following major Melodies (in 2, 4 and 8-measure Phrase-form), according to the above directions:—





*1) This fraction of a beat (*a*) is more likely to be the IV, like the preceding fraction *d*, than to change the harmony to the I. Hence the slur.—*2) When the Leading-tone descends, as here, to the 5th step, the latter must *also* be harmonized with the V, and *not with the I*; because nothing but chord-*repetition* will justify the melodic licence (59).—*3) In this chord (IV) it will be found necessary to double *b*, contrary to the general rule (51), on account of the wide skip which follows, in the Soprano,—*4) Turn all stems upward.

To this Lesson, add Appendix C, No. 1.

CHAPTER XI.

The Minor Mode.

(Mat. Mus. Comp. §§ 82—89.)

83. The line of research and argument in Chapter I, leading up to paragraph 11 (which see), distinctly proves that, of the two Modes recognized and employed in modern music, that one known as "Major" (because its Prin. Triads have a major Third, 32) is the Natural one.

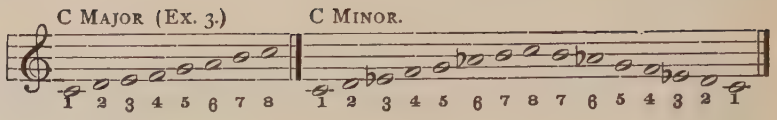
84. The other, i. e. the "Minor"mode, is consequently to be regarded as an Unnatural or Artificial mode, and is accounted for as an *arbitrary modification* of the natural major mode (from a simple and justifiable motive, as will be seen).

85. This modification affects the two Mediants, i. e.

> ***The third and sixth steps of the major scale, which are lowered*** **(by an accidental) so as to transform the corresponding major intervals *into minor intervals*. No other steps are changed!**

Thus:

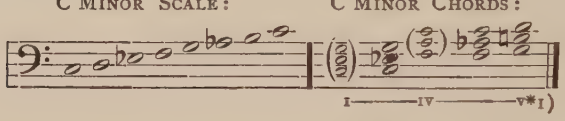
Ex. 56.



86. The scale thus obtained is called the HARMONIC minor mode; it is the only theoretically accurate minor scale, and is the *same* in both ascending and descending succession. Still other modifications, subsequently rendered necessary by *melodic* considerations (to be explained in due season), *are based upon this Harmonic minor mode*, which must therefore be first thoroughly mastered.

87. It appears then, that a minor scale is derived *from the major mode of the* SAME KEYNOTE. (C minor from *C* major; A minor from *A* major, etc.) And the lowering of the 3rd and 6th steps results from transforming the Prin. chords I and IV from *major* into *minor* Triads (see 32). Thus:

Ex. 57.



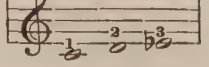
Compare Ex. 18.

*1) The same principle of transformation, (*which contracts the major 3rd to a minor 3rd, thus drawing it nearer to the verge of Dissonance and enlivening the harmony with a slight unction, more welcome, and also more active, than pure Consonance*—see 19, 20, and Ex. 10.)—, would be applied to the *other* Prin. Triad, the V, also, if it were practicable. But as it would infringe upon the *Leading-tone*, it is not feasible in the *Harmonic* mode. Hence:

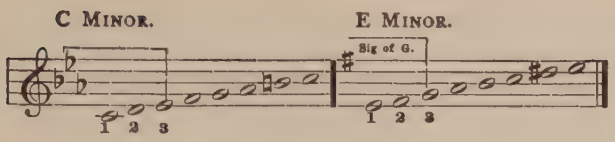
88.

The Leading-tone of the Harmonic minor mode remains the same as in major (85), and therefore the DOMINANT TRIAD IS ALIKE IN BOTH MODES.

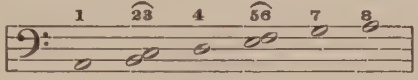
89. The Signature of each minor mode is borrowed from that major mode whose Keynote corresponds to the Mediant (3rd step) of the minor, because that is the scale which it most essentially *resembles*. For this reason the latter is called the RELATIVE major key. (*Do not confound this with the* ORIGINAL *major!* See 87.) Thus the Relative of c minor is E flat major:



therefore its signature is 3 flats, *one of which however must subsequently be canceled in the parts*, viz., that one which interferes with the Leading-tone of the minor scale. For illustration:



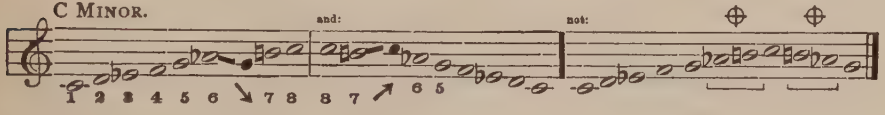
*1) The relation between a minor scale and its Signature is furthermore illustrated, and partly accounted for, by the history of the Minor mode, whose origin is traced to the "Hypodorian" (or "Aeolian") mode of ancient Greek theory. This was one of the seven octave-scales which were deduced from the fundamental tone-system (corresponding to any of our modern major scales —, say the white keys of the Pianoforte) by beginning and ending with each of the seven letters of the octave, respectively. The "Hypodorian" ran along the white keys (for example) *from A to a*, thus:



whereby the half-steps were located between the *2d and 3rd*, and *5th and 6th* tones.

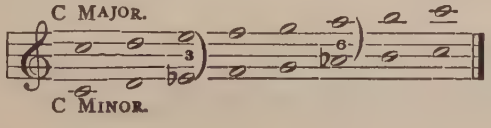
This scale, not adopted by St. Ambrose, but later on by Gregory as "Tonus II (Plagius Proti)," and still later by Glarean as "Modus Aeolius", developed in course of time into the *descending melodic minor mode* of modern theory. The above example (A to a) is obviously based upon the succession of the scale of C major, to whose *tones* it exactly corresponds, but beginning and ending with the *6th step* instead of with the 1st; for which reason it was called the Relative minor of C major, *and borrowed* (*or retained*) *the* SIGNATURE OF C MAJOR. In the same manner, C minor (or *C-Aeolian*) began and ended with the 6th step of E-flat major, and retained the Signature of the latter. Why, as stated above, one of these flats must however be canceled, in submission to the Leading-tone of the *Harmonic* scale, will now be understood.

90. The treatment of the Prin. Triads in minor is in every respect the same as in major, only excepting the following restriction: The harmonic minor scale contains the unnatural melodic progression of an *augmented second*, between its 6th and 7th steps (in C minor, a flat—b natural; in E minor, c—d sharp, etc.). *This succession must be avoided, in both directions, in all the voices.* See 42, Rule Ia; 58, Rule III; Appendix B, 6. Thus:



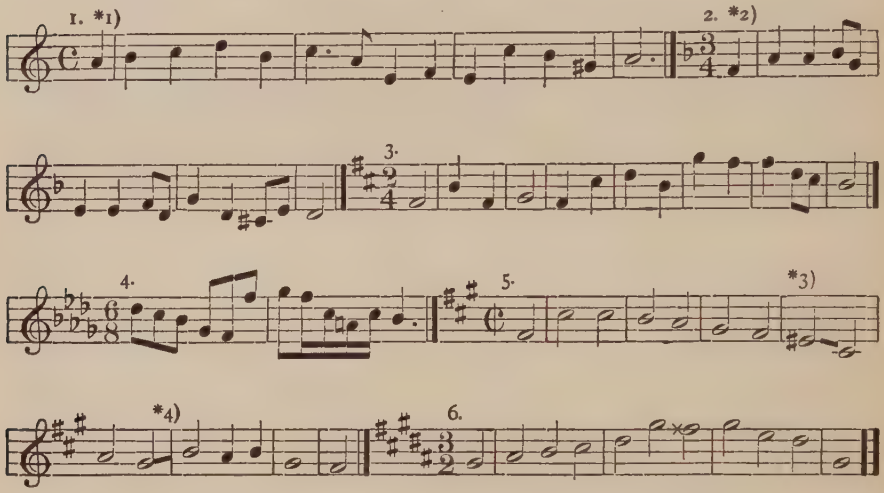
Lesson 11.

A. Write out all the major scales (excepting D flat and G flat) and place *their own minors* below them, using no signatures, but accidentals, as follows:



(over)

(The minors of c sharp, g sharp and d sharp may be taken from the *majors* of c sharp, g sharp, d sharp; or, if these prove too complicated, they may be transposed from the scales of D flat, A flat and E flat).—**B.** Harmonize the following melodies, as in Lesson 10; WATCH THE 6TH AND 7TH SCALE-STEPS! be careful that each moves in the proper direction, and that neither of them is doubled; do not neglect the accidental before each Leading-tone:



*1) This melody is in A minor, as the *last* tone proves. It is therefore harmonized as if it were in A major.—*2) D minor; treated as if it were D major.—*3) Lesson 10, note *2).—*4) Here there is no alternative but the chords V—IV.

TO THIS LESSON, ADD APPENDIX C, No. 2.

CHAPTER XII.

Subordinate Triads in Major.

(Mat. Mus. Comp. §§ 90—108.)

91. The Triads upon the subordinate scale-steps (the II, VI, and III—see 31), are not to be regarded and employed as new and independent chords, but as the

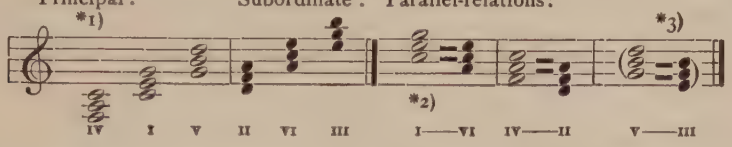
> *Parallels of the three Principal Triads, in the place of which they are respectively used,* **chiefly for the sake of variety.**

92. The relations are as follows:

> The VI is the Parallel of the I (Tonic Element);
> The II is the Parallel of the IV (Subdom. Element); and
> The III is the Parallel of the V (Dominant Element).

In other words, the VI is the Subordinate representative of the TONIC element; the II is the Subord. representative of the SUBDOM. element; and the III the Subord. representative of the DOMINANT. For illustration:

Ex. 59.



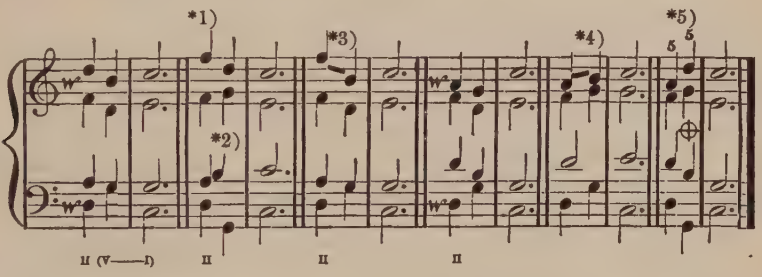
*1) Compare Ex. 17. By placing the IV here, *below* (and before) the I, the relation between the two bodies of Triads is more accurately illustrated.—*2) It will be observed that the Parallel chords represent *Relative Major and Minor Keys*.—*3) These chords are not parenthesized because of any doubt as to the relation, but because *the III is so very limited in its use that it can hardly claim consideration in this connection.*

The II.

93. Of the Subord. Triads the strongest is *the II*, which, coming *next to the V*, in perf. 5th-succession (see 30), has *as good a claim to the rank of a Prin. Triad as the IV—possibly a better*. This is touched upon in Ex. 17, note *1) (which see), and will be more fully elucidated in due time. The best Interval of every Subordinate Triad is its *Third*. Place the Third in *Soprano* whenever practicable, and *double the Third* in preference to the Root.

94. The II often takes the place of the IV, before the Perfect Cadence. Compare Ex. 41. For illustration:

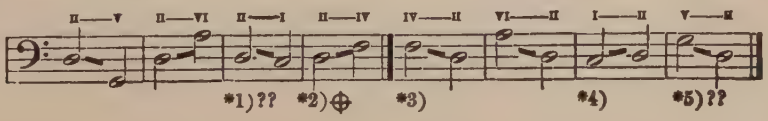
Ex. 60. C-MAJOR.



*1) Double either *f* (the Third) or *d* (the Root, as in the first measure). See Ex. 33 a.—*2) Comp. Ex. 43, note *1).—*3) This wide leap to the Leading-tone, in Soprano, is allowed in *descending* direction only.—*4) Comp. Ex. 41, note *4). Here the irregular progression, from the 6th step upward to the 7th, is *less objectionable* than in the former case, because the chords are related. But it should be avoided, if convenient.—*5) Wrong; see Ex. 42, note *2).

95. Aside from this (its best progression) the II may connect as follows with other Triads:

Ex. 61.



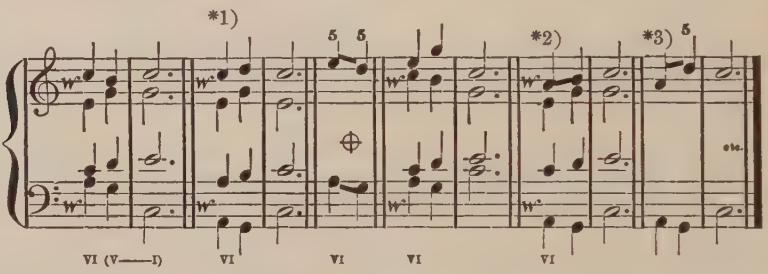
*1) This Foreign Progression II—I is very ungraceful and should be avoided.—*2) The progression of the II into its own Parallel the IV is forbidden. No Subordinate Triad can *precede its own Principal* chord.—*3) IV—II, on the contrary, is an excellent progression, of the nature of a *Repetition* (the chords being Parallels) and entitled to many (if not all) of the licences of chord-repetition (59).—*4) I — II is not as objectionable as the reverse (note *1), because the *Tonic Triad can progress in all directions*.—*5) V — II is objectionable, on the grounds of 64, Rule III. But it is better than V — IV, as the chords V —II are *related*.

See Appendix A, Section 1.

The VI.

96. The VI is the counterpart of the I, and is employed *exclusively* as inferior representative of the *Tonic harmony*. Like the I, *the VI can progress into every other chord* (64, Rule I), only excepting into the I itself, which, being its *own* Prin. Triad, it cannot precede (VI—I ⊕; comp. Ex. 61, note *2) Hence, the VI may precede the perfect Cadence; thus:

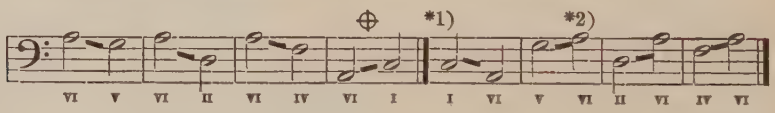
Ex. 62. C-Major.



*1) Double either *a* (the Root) or *c* (the Third — as in the first measure). See Ex. 33 a. *2) Permissible. Comp. Ex. 41, note *4), and Ex. 60, note *4).—*3) An unnecessary leap in Soprano; and inexcusable, because a Foreign chord-progression.

97. The full table of connections of the VI is as follows:

Ex. 63.



*1) Excellent, like Ex. 61, note *3), which see.—*2) This does not contradict 64, Rule III, because the VI is a Tonic chord, as well as the I. See Appendix A, Section 1.

Lesson 12.

Write out the following chord-successions in the usual manner, without regard to rhythm (uniform quarter-notes or half-notes), in a number of different major keys:

IV–II–V–I‖VI–II–V–I‖I–II–V–I‖IV–II–VI–V–I‖I–II–VI–II–V–I‖

I–V–II–V–VI‖I–VI–IV–V–V–I‖I–V–VI–VI–V–I‖I–IV–II–I–VI–IV–V–I‖

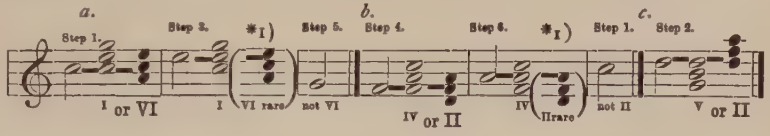
N.B. A part of the Lesson must be done at the Pianoforte (close harmony) at sight

CHAPTER XIII.

Subordinate Triads. Melodies.

98. In applying the Subord. Triads to the harmonization of melodies, the following facts must be recalled: that the VI can take the place of the I (96) and therefore harmonizes the *1st step* of the scale (more rarely the 3d step, and never the 5th); that the II can take the place of the IV, harmonizing the *4th step*, (rarely the 6th step and never the 1st); and that the II may also be used as *independent* harmonic factor (93), harmonizing its own step — *the 2d* — (just as the I does the 1st step, the IV the 4th step, and the V the 5th step). Thus:

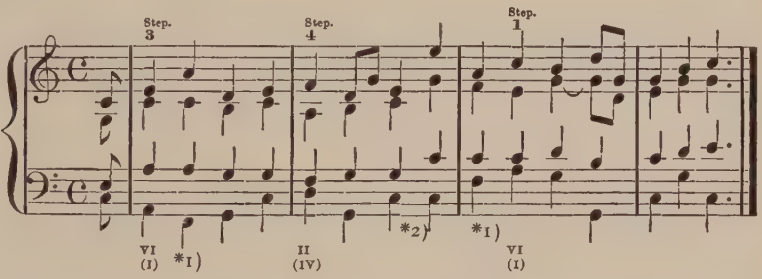
Ex. 64.



*1) Rare, because the *Fifth* of the chord would be in Soprano,—always the weakest Position.

99. Applying these rules to Melody 9 of Lesson 10, the following substitutions may be made (observe parentheses):

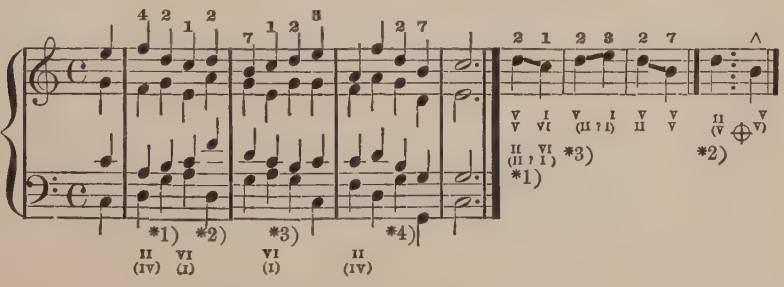
Ex. 65.
C-MAJOR.



*1) Not the II.—*2) Not the VI.

100. Furthermore, with special reference to the 2d scale-step:

Ex. 66.

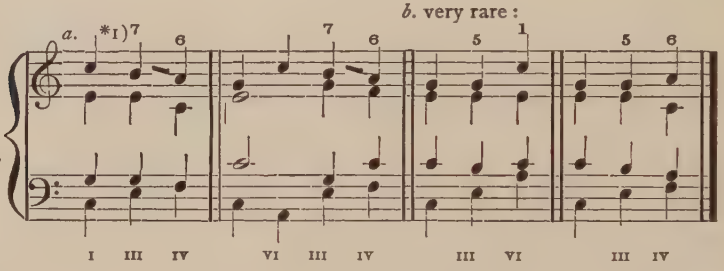


*1) Whether the 2d step is to be harmonized with the V, *or II* (Ex. 64, c) depends largely upon the *next* Melody-tone. This *d* might be either V or II, as the VI follows.—*2) This *d* cannot be a V, because the latter could not be repeated over the bar-line.—*3) The following tone (*e*) must be harmonized with the I; therefore choice falls upon the V for *d*, as II—I is objectionable (Ex. 61, note *1).—*4) Must be the V, as the II cannot be repeated from the preceding (light) beat.

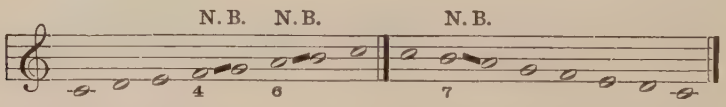
The III.

101. As already stated (Ex. 59, note *3), the III is very circumscribed in its uses,—owing to its remoteness from its Tonic-centre (in perf. 5ths; see 30; and Ex. 17). It is almost exclusively limited to harmonizing the LEADING TONE, *when the latter* DESCENDS DIATONICALLY (into the 6th step). For illustration:

Ex. 67. C-MAJOR.



*1) This apparent violation of 47 and 58, is justified by (as it is owing to) the descending diatonic SCALE, in which each tone (the Leading-tone included) is impelled downward by the momentum of the preceding tone. If approached from a *lower* tone, in *ascending* direction, *the Leading-tone must ascend;* comp. Ex. 43, note *1).—The same is inversely true of the *ascending* diatonic scale, in which the *4th and 6th* steps are impelled upward.

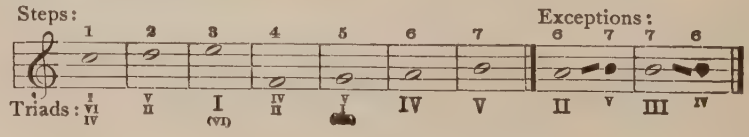


The 6th and 7th steps are harmonized with the IV and V respectively, *only excepting when they progress thus improperly* (6 into 7, or 7 into 6), in which case the Parallel Triad is to be used.

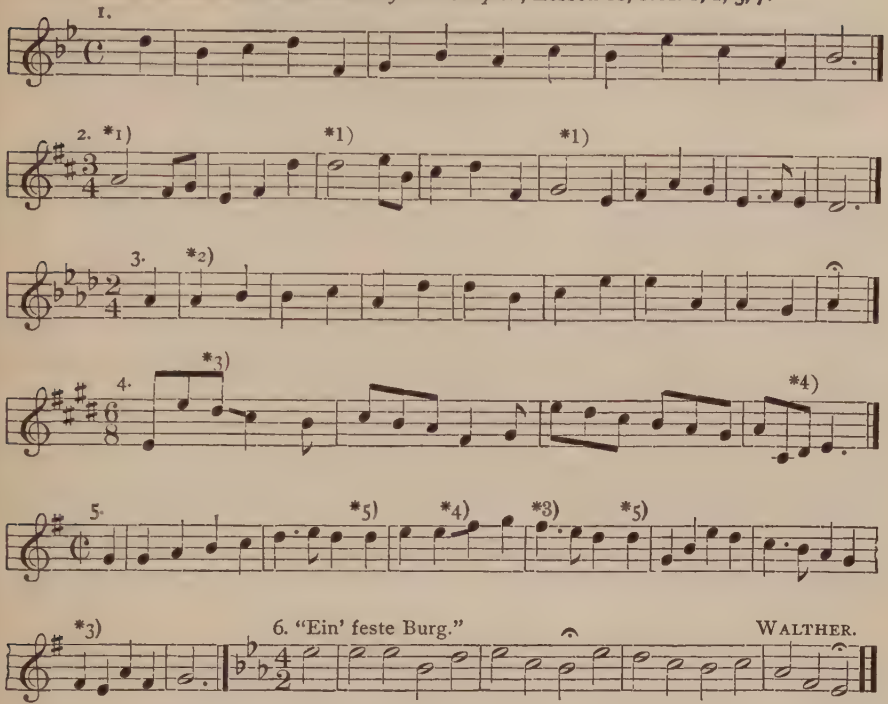
Lesson 13.

Melodies, to be harmonized with all six Triads; and with reference to the following summarized table: See Appendix A:

C-MAJOR.



First re-harmonize, *with the material of this Chapter*, Lesson 10, Nos. 1, 2, 3, 7.



*1) Each of these *long* notes may be harmonized with one chord, or with *two* (♩— notes), at option.—*2) At each of the *repeated* notes in this melody the chord must be changed, (according to 64, Rule IV).—*3) Ex. 67 a.—*4) Ex. 60, note *4); or Ex. 62, note *2).

*5) Harmonize *d* with the III (Ex. 67 b.)

To This Lesson, add Appendix C, No. 3.

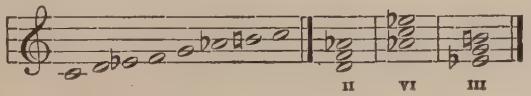
CHAPTER XIV.

Subordinate Triads in Minor. The Period.

(Mat. Mus. Comp. §§ 109—111; 112—114.)

102. The notation of the II, VI and III in minor must conform to the Harmonic minor scale. Thus:

Ex. 68.
C-Minor.



a) The II, having a diminished Fifth, is a DIMINISHED Triad. It occurs *very rarely* in its *fundamental* form (Root in Bass).

b) The III, having an augmented Fifth, is an AUGMENTED Triad. It is even less frequent in minor than in major.

c) The VI is a MAJOR Triad, and of equal importance in both modes.

103. The II and III, owing to their dissonant Fifth, are Discords. Therefore, *only the VI* can be used in minor at present. See 90, which also applies to the VI.

The Period.

104. The Period-form consists of two Phrases, of equal length, and similar in Time, Key and general harmonic character.

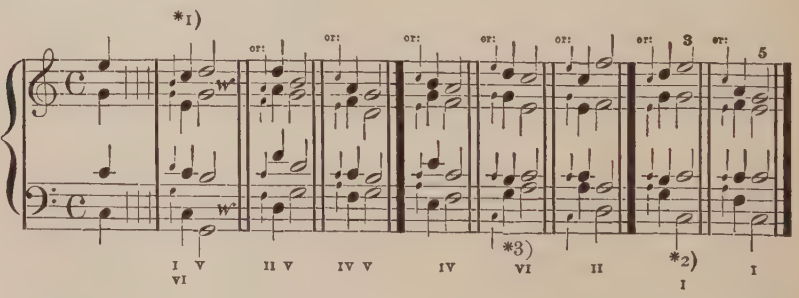
105. The first of the two is called the ANTECEDENT Phrase. It begins with the I, (beat, and Soprano-Position optional, as usual), and closes upon an accented beat of the 2d, 4th or 8th measure, *not with the Perfect Cadence*, but with a so-called **Semi-cadence.** (Compare 61 and 62).

106. The Semi-cadence is **usually made upon the V,** (preceded by the IV, II, VI or I); but it may be *any other Triad* — excepting the III —; even the I, with Third or Fifth (i. e. *not the Root*) in Soprano.

And it must be a chord of comparatively longer duration than the adjacent chords, in order to *interrupt the rhythm,* and thus distinctly mark the end of its Phrase.

For illustration (— a two-measure "Antecedent"):

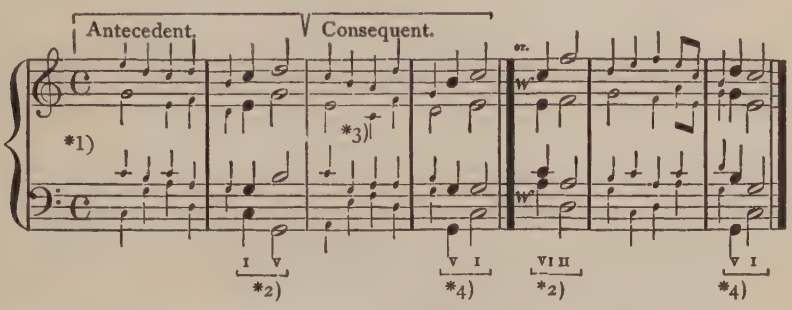
Ex. 69.



*1) Or the VI, by taking *a* in Bass.—*2) This Semi-cadence on the Tonic is often called "Imperfect", because it is only prevented from being "Perfect" by not having the *Root* in Soprano.—*3) The Cadence on the VI (V — VI) is called "Deceptive," because V — I is *expected.*

107. The second of the two Phrases is called the CONSEQUENT. It should begin on the *same beat* as the Antecedent, (with any convenient chord), and must close with the Perfect Cadence, on the *same accent* as the Antecedent, which it must exactly equal in length. The Antecedent sketched in Ex. 69 might be complemented as follows:

Ex. 70.



*1) Comp. these 4 measures with the 4-measure Melodies of Lessons 10, 11 and 13, and observe the distinction between the Phrase (as *uninterrupted* chord-series), and the Period (or *Double*-Phrase). Not the *number of measures*, but the presence or absence of a *Semicadence* defines the Form.—*2) Semicadence.—*3) The Melody of this Consequent Phrase runs parallel with that of the Antecedent. This is favorable, but by no means obligatory. See 42 c. *4) Perfect Cadence.

Lesson 14.

A. Write out the following series of chords, in 4-part open Harmony as usual, formulated in Phrases of 4 measures:

I–V–VI–IV–V–I–V–I

in the following forms; the *rhythm*, *location of barlines*, and *Repetitions* being optional:

1. C minor, 2–4 Time, beginning on heavy beat;
2. A minor, 3–4 Time, beginning on light beat;
3. F sharp minor, 4–4 Time, beginning on heavy beat.

DIRECTIONS: 1. Fix the *barlines*. These may be drawn between any of the given chords, almost unlimited option being possible. But care must be taken to preserve the sum of four measures, and to locate the Cadence properly.—2. Determine the number of *Melody-tones* for each measure; this will decide the number of *chord-repetitions* which may be necessary, and the *rhythm*.—3. Write out the Bass; then the Soprano; and then finish. SEE APPENDIX B.

B. Re-harmonize the following melodies, introducing the VI at least once in each melody:—Lesson 11, Nos. 3, 4, 6; Appendix C, No. 2, *a*, *d*, *e*.

C. Write a number of original four-measure phrases, in different *minor* keys, and different kinds of time, as in Lesson 9,—using only the three principal triads, and an occasional VI. See par. 103.

CHAPTER XV.

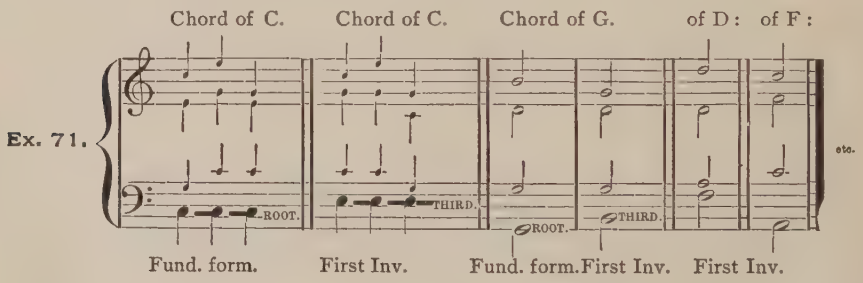
Chord-Inversion.

108. The fundamental forms hitherto employed (with the Root in Bass) are naturally very strong and ponderous, but also to a certain degree ungraceful and unwieldy. Therefore it is not only admissible, but often eminently desirable, to modify the form of a Triad

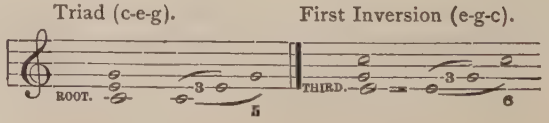
> *by placing either its* **THIRD** *or its* **FIFTH IN THE BASS,** *instead of the Root, thus effecting the* **INVERSION** *of the chord.* **(23).**

109. This alteration of the lowermost part fulfils the same purpose as the distinction of "Position" in the uppermost part (54), *and affords the Bass similar opportunities for smooth and graceful melodic progression* (instead of the almost constant succession of wide leaps which were unavoidable in the rugged Basses of the foregoing Lessons and Examples). See Preface, I.

110. When the Bass thus assumes the THIRD of the Triad, the latter stands in the FIRST INVERSION. For illustration:



111. The first Inversion of a Triad is designated "CHORD OF THE SIXTH," because the *shape* of the Triad (as regards its component intervals from the Bass-tone upward) has changed from "Root—3rd—5th," to "Bass-tone — 3rd — *6th*":



The figure 6, when attached to any Bassnote, will therefore serve to indicate that the *1st inversion* of the chord is required; or, in other words, that the Bassnote in question is not the Root (as hitherto) but the THIRD of the chord; — the Root must therefore be sought *a 3rd below* the given Basstone:

Chord of C. Chord of A.

Chords of the Sixth.

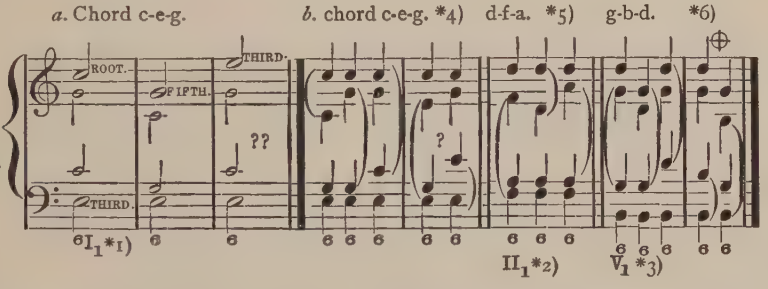
112. RULE I. In a chord of the 6th, the *Soprano usually takes the Root* — or, if more convenient, the *Fifth* of the chord. But rarely the *Third*, which should not appear simultaneously in both Soprano and Bass. Ex. 72 a.

RULE II. Double, as usual, *any of the Prin. tones of the scale* (Tonic, Dom. or Subdom.). But observe that all rules of duplication are of secondary importance, when they conflict with other rules,— especially that of *good melodic progression*. Ex. 72 b.

RULE III. In an Inversion, *no Intervals should be omitted.*

RULE IV. Change the *Basstone* at each accent, and change the chord also if possible.

Ex. 72. C-MAJOR.



*1) In C major, c-e-g is the Tonic chord, or I. With *e* (the Third) in Bass, it is the 1st Inversion; this is indicated by I_1 (spoken: ONE-ONE), and figured 6 .—*2) The II (d-f-a) with *f* in Bass; hence II_1 (TWO-ONE).—*3) The V (g-b-d) with *b* in Bass, hence V_1 (FIVE-ONE).—*4) Doubtful, because *e* is doubled.—*5) These three duplications are all admissible. —*6) Doubled Leading-tone,—always wrong.

113.

The 1st Inversions of the I, V, IV and II are excellent, and should be freely used. *But the 1st Inv. of the Subordinate VI and III must be shunned.*

114. The substitution of the Third for the Root, in the Bass voice,

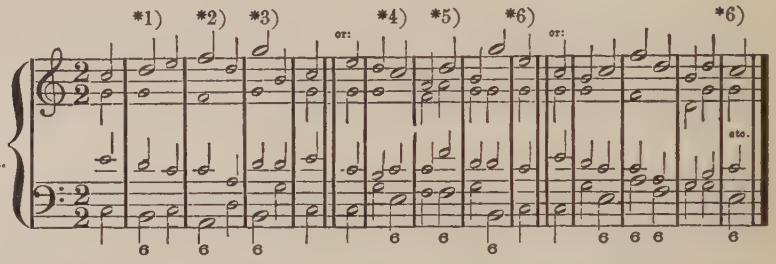
lightens and beautifies a Triad, and also materially facilitates its connection with other chords. The movements of Chords of the 6th, therefore, while subject *in general* to the same rules of progression as their respective Triads, are far less constrained. See 118. (Mat. Mus. Comp. §§ 118—139.)

115. Applying the principle of 1st Inversion to the following Chord-series,

I | V–I | IV–II | V–V | I ‖

the results would be:

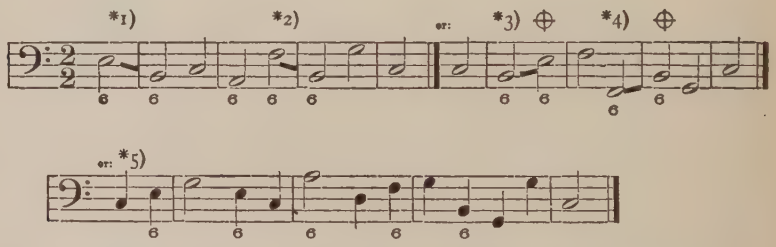
Ex. 73. C-Major.



*1) The V (g-b-d), with the Third in Bass and Fifth in Soprano.—*2) IV (f-a-c), Third in Bass, Root in Soprano.—*3) V_1—Root in Sopr.—*4) I_1—Root in Sopr.—*5) II_1—Root in Sopr.—*6) Neither of these two Cadences is *perfect*, as they both involve an *Inversion*.

Furthermore (Bass alone):

Ex. 74. Bass.



*1) *2) These *descending* leaps to the Leading-tone are admissible. See Appendix B, 8. *3) This progression violates 58, Rule III.—*4) The *ascending* leap to the Leading-tone is wrong. Comp. note *2).—*5) This version illustrates how *both* Chord-forms may appear, as Repetition, on the same beat.

Lesson 15.

A. Construct complete 4-measure Phrases in A maj., E-flat maj., F maj., and D maj., 3-4 Time, with the following chords:

I | I–I–VI | V–I–IV | I–II–V | I ‖

using occasional Chords of the 6th (i. e. the Third in Bass) as shown in Exs. 73, 74.—

B. Construct complete 4-meas. Phrases in E minor, D minor, B minor and F minor, 4-4 Time, with the following chords:

I | V–V–I–I | IV–IV–V–V | I–VI–IV–V | I ‖

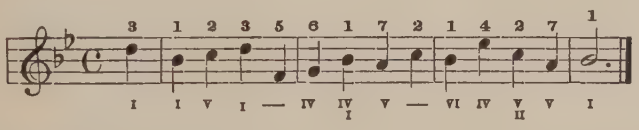
utilizing the 1st Inversion as before.

CHAPTER XVI.

Chords of the Sixth. Melodies.

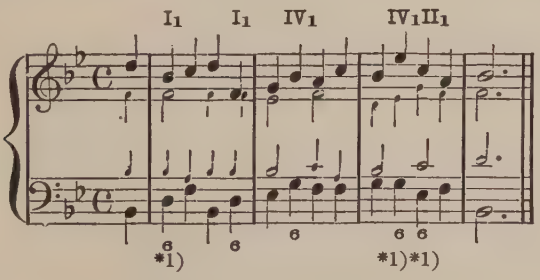
116. After the primary chord-basis of a given Melody has been defined, the Bassvoice will not be limited to the *Root*, as heretofore, but may now choose between that and the *Third* of each chord, as shown in the foregoing Chapter. See Appendix A, Section 2.

117. Assuming that the chord-basis of Melody No. 1, Lesson 13, was as follows:

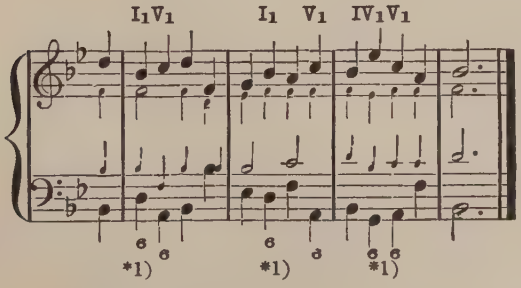


the Bass-voice might run thus:

Ex. 75.
B♭-Major.



or:



etc.

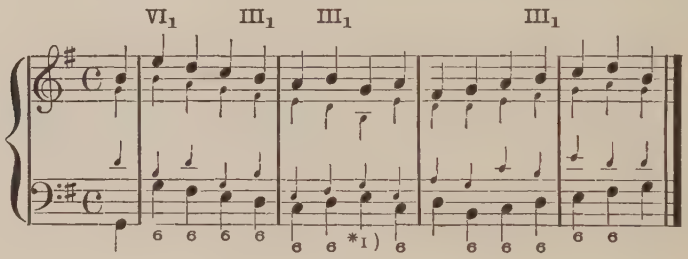
*1) It will be observed that the chords of the 6th are most frequently substituted for the fundamental Triad *where the Soprano has the Root* of the latter (see 112, Rule 1).

118. Besides favoring the Bass progression (109), and distinctly enhancing the beauty of a chord (114), the act of Inversion is most significant in its *ameliorating effect upon the connection with other chords.* All the objectionable Triad-progressions given in 64, Rule 3,—Ex. 61,—and Ex. 63, are improved and justified when the *second* chord of the succession is inverted. See Appendix A, Section 2, par. 3–5.

Further, such doubtful Soprano progressions as Ex. 42, note *2), and Ex. 60, note *5), are decidedly mollified by inversion; for the chord-fifth in Soprano is most objectionable, because most distinctly heard *as 5th*, when the *chord-root is in the Bass.*

119. For this reason, also, *chords of the 6th may be connected with each other in any order*, regardless of the tables of Triad-progressions. And, in such successions, the VI_1 and III_1 may therefore appear without objection (comp. 113); i. e. they are surely good when followed by some other inverted chord. But successive 6ths should be uniform to a certain extent,—always *Root in Soprano*,—the inner parts optional. Thus:

Ex. 76.
G-MAJOR.

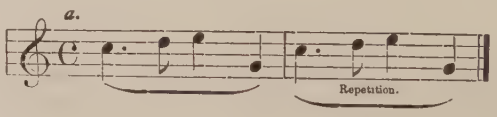


*1) This might also be a 6th (I_1), but the Triad is better, after so many Inversions.

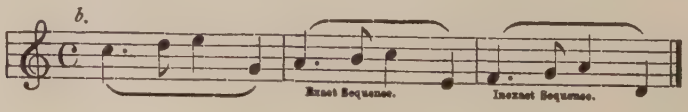
Sequences.

120. The reproduction of a cluster of tones, on the SAME STEPS, is a simple REPETITION:

Ex. 77.



But the reproduction of a figure or cluster upon some OTHER, HIGHER OR LOWER, STEPS, is termed a SEQUENCE:

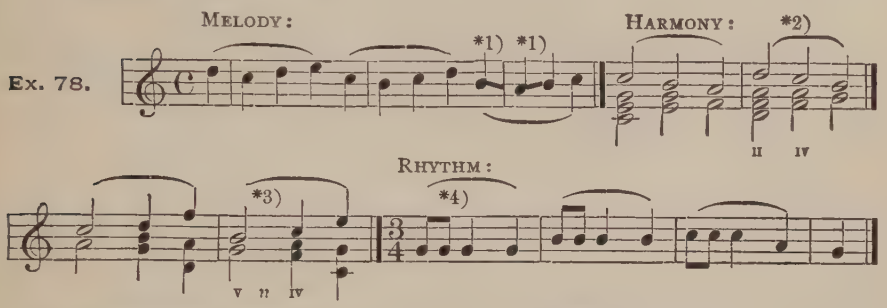


etc.

121. A Sequence in music affords the same gratification to the ear that the symmetrical features of an architectural or natural design afford the eye, or the metrical structure and rhyme of a verse of poetry affords the mind. Therefore the ear will submit more willingly to a certain degree of *harmonic or melodic irregularity* in a *Sequence* than elsewhere; for the transient violence that may be done to certain steps and chords, by constraining them into agreement with the foregoing figure, will be more or less completely lost sight of, or at least assented to. Hence the rule, that

Sequences justify any reasonable irregularity of Melody, Harmony or Rhythm.

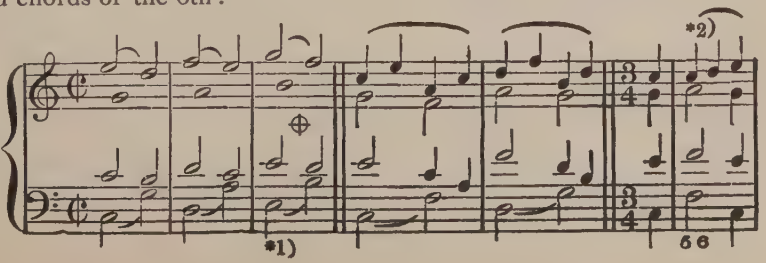
Ex. 78.

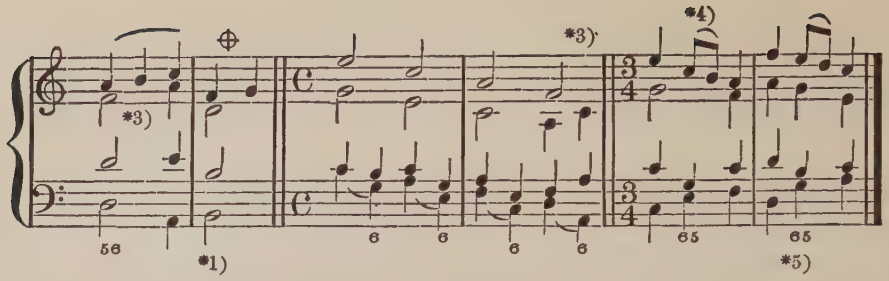


*1) An admissible exception to 58, Rule III.—*2) Admissible exception to Ex. 61, note*2) —*3) This intolerable progression can scarcely be justified even by exact Sequence.—*4) This irregular rhythm (see 38), so frequently used in 3-4 Time, is compensated for by the sequential repetition. See also Ex. 23, note *2).

122. When the sequential form is adhered to in *all four parts*, the result is a HARMONIC sequence. (*a*) Such chord-clusters in sequential succession are generally admissible, regardless of the rules of *regular* chord-progression, excepting when the Leading-tone Triad is involved,—Ex. 17, note *2). (*b*) Usually, each of the four parts retains its original figure. (*c*) This, however, is by no means obligatory. The "*Sequence" does not need to be harmonic;* it may be confined to the Soprano, or to Bass, or even an inner part, while the other voices pursue their independent course. (*d*) Further, a sequence need not always be *absolutely exact.* (*e*) Sequences should rarely extend to, and never *exceed*, four in number. (*f*) In Minor they are rare, and usually brief. Illustration of harmonic sequences, with Triads and chords of the 6th:

Ex. 79. C-MAJOR.



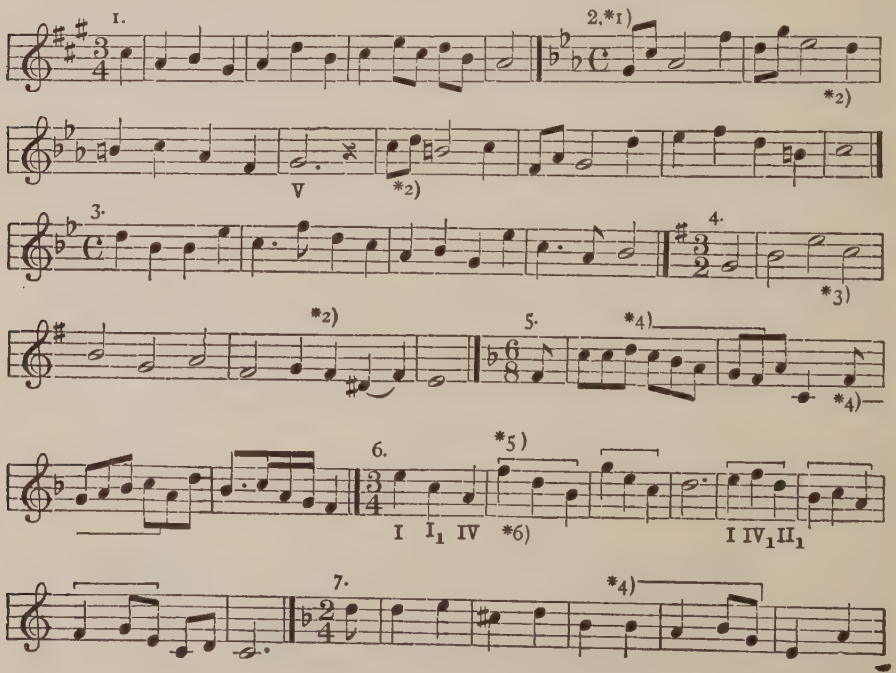


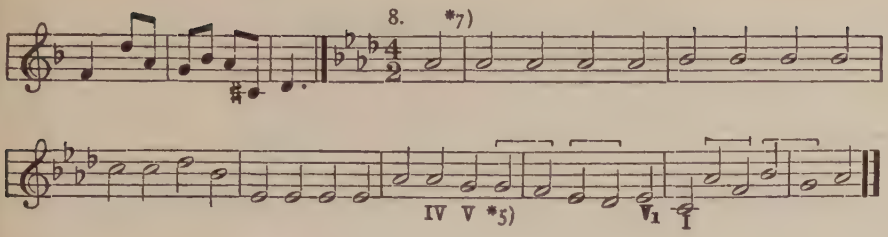
*1) See 122 a. The Sequence must either be abandoned, or else altered, whenever it strikes the Leading-tone Triad.—*2) This is the combination of a Triad and a 6th *on the same Bass tone.* It is figured $\widehat{5\,6}$ or $\widehat{6\,5}$, as the case may be, and is *very* frequent and good. The Soprano generally takes the differentiating tones (5 and 6) while the other parts *remain unchanged.* See note *4).—*3) See 122 b and c.—*4) Here the combination $\widehat{6\,5}$ (note *2) is made on a *single beat.* The slur indicates that they are to be treated accordingly, and not as *independent* melody tones.—*5) Inexact Sequence; see 122 d.

Lesson 16.

A. Harmonize the following Melodies, with Triads and chords of the 6th; with constant reference to the table in Lesson 13.—See 112, Rule IV; and Ex. 75, note *1).

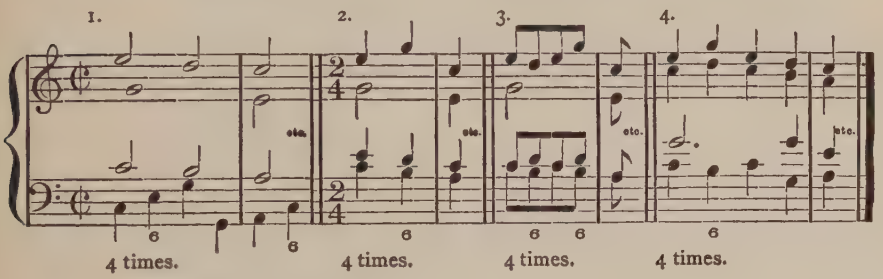
First re-harmonize, *with the material of this chapter*, Lesson 10, Nos. 1, 2, 3, 5, 6; Lesson 11, Nos. 2, 6; Lesson 13, Nos. 1, 3, 6.





*1) In regard to the irregular Rhythm, see Ex. 78, note *4).—*2) The II in its *Triad*-form is not commendable in minor (see 102a), but in its *first Inversion* (II_1) it is treated in minor precisely as in major. Therefore it may be used here, notwithstanding 103.—*3) May be the VI_1.—*4) Successive 6ths (119).—*5) These brackets indicate Sequences; see note *6).—*6) The chords for the initial figure are given. As the Sequence lies *one step higher* (in this case) the chords $I–I_1–IV$ become $II–II_1–V$, and so on. Each Sequence is calculated in this manner.—*7) A new *Bass-tone* for each repeated note, throughout.

B. Extend the following measures in exact Sequences, at the Pianoforte:

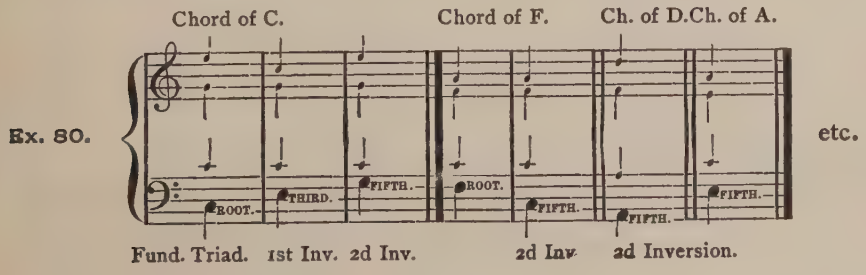


To This Lesson, add Appendix C, No. 4.

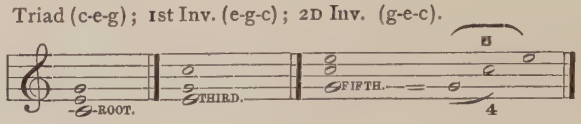
CHAPTER XVII.

Chords of the Six-Four.

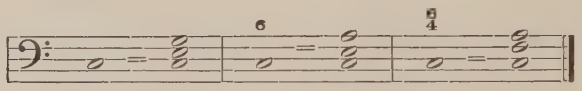
123. When the Bass assumes the Fifth of the Triad, the latter stands in the Second Inversion. Comp. 110.—For example:



124. The 2d Inversion of a Triad is designated "CHORD OF THE SIX-FOUR" because the *shape* has changed from "Root–3rd–5th," to "Bass-tone–4th–6th":



The figures 6-4, when attached to any Basstone, will therefore serve to indicate that the *Second Inversion* is required, i. e. that the Bassnote in question is not the Root, nor the Third, (as hitherto), but the FIFTH of the Chord. The Root must therefore be sought *a 5th below* the given Bassnote:



Compare 111.

Chord of C. Chord of A. Chord of F.

The Tonic-6-4-chord.

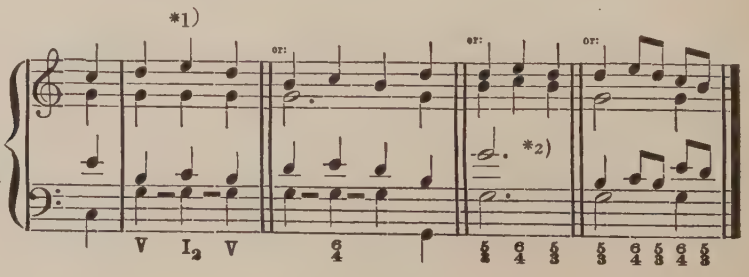
125. The 2d Inversion is the *weakest* (though not the least useful) form of a chord, and is therefore subject to many restrictions. A 2d Inversion is never employed to represent or substitute its own fundamental chord, but only for the purpose of *harmonic embellishment*. The best six-four chord is the 2d Inv. of the TONIC Triad, i. e. the I_2 (I, in 2d Inv. or "ONE–TWO"; comp. Ex. 72, note *1).

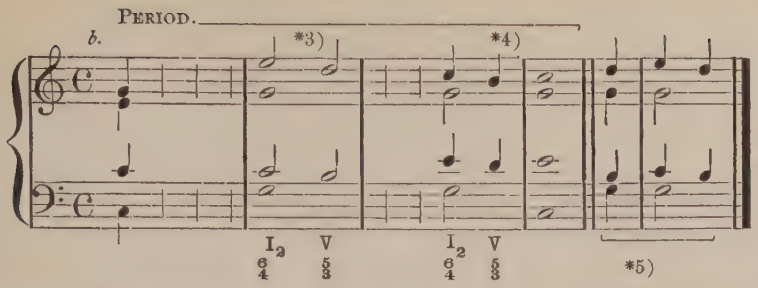
126. The Tonic-6-4-chord may be connected (preceding or following):

a) **With the Triad on the *same Basstone*, viz. *the V*.**

This may occur anywhere in the course of a Phrase or Period, but it is of peculiar importance at the *Semi-cadence*, and at the *Perfect cadence*. For illustration (both major and minor):

Ex. 81. C-MAJOR AND MINOR.



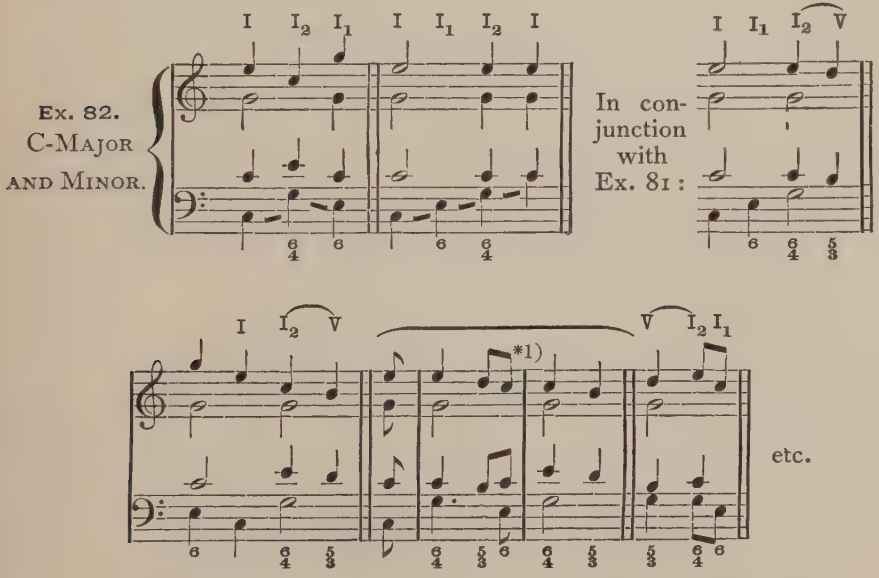


*1) This I_2 does not produce a *Tonic* impression, but merely that of a casual *embellishment* of the Dominant.—*2) The figures 5-3 denote the Triad. In this connection *the interval* 6 (wherever it chance to be) *should progress into the* 5; and the interval 4 *into* 3.—*3) Semi-cadence; the I_2 *always stands accented* at this place, and also when it precedes the Perf. Cadence.—*4) Perf. Cadence.—*5) Such a repetition of the *Bassnote* over the barline (in analogy to 39) is objectionable. N. B. *Each accent must be* founded upon A NEW BASSTONE. See 112, Rule IV. The rhythmic location V | $\overline{I}_2$ or I_2 | V is not allowed!

127. The I_2 is furthermore connected, before or after:

b) **With any other form of the *same chord*, as *Repetition*.**

Thus: (major and minor):



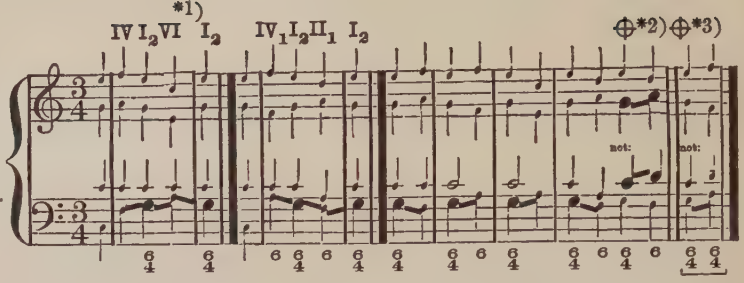
*1) This illustrates an important exception to 39 (which see); viz. a *chord may be repeated over the accent*, when it changes to the SECOND INVERSION (more rarely, to the FIRST). 112, Rule IV.

128. The I_2 may also be connected, before or after:

c) **With the Triad or chord of the 6th upon the *next higher* or *next lower* Basstone; i. e. in *Diatonic* progression.**

For illustration:

Ex. 83. C-Major and Minor.



*1) VI–I2. An exception to Ex. 63, measure 4; justified by Inversion.—*2) These parallel 5ths are very tempting and imminent. More than ordinary caution must be exercised in *all* connections of I–II or II–I in Major.—*3) *Six-four* chords cannot appear *in succession*; they afford each other no support.—Comp. 119.

129. These three connections of the Tonic–6–4–chord constitute the basis upon which the movements of **all 2d Inversions** are regulated. Hence the following deductions are applicable to 2d Inversions in general:

Rule I. Six-four chords can neither enter nor progress with a *skip in the Bass-voice*, excepting when a Repetition (Ex. 82, and paragr. 59). That is, the Bass is either *stationary*, or is limited to *diatonic* (step-wise) progression.

Rule II. Six-four chords must be connected with *Triads or 6ths;* not with *other* 6–4 chords.

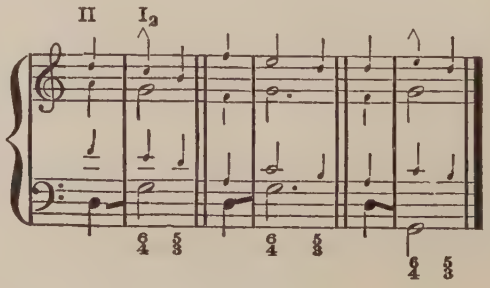
Rule III. A chord may be repeated over an accent *when it becomes a 2d Inversion.*

Rule IV. In six-four chords the Basstone (the chord-Fifth) is almost invariably doubled. See also 112, Rule 3.

(Mat. Mus. Comp. §§ 141—149).

130. One exception to Rule I is applicable to the *Tonic*–6–4–chord only, in the *major* mode: viz., *a skip in Bass from the II* to the I_2, when the latter is *accented.* Thus:

Ex. 84. II–I_2.



Lesson 17.

A. Write out the following chord-progressions in at least four Major keys, in 4-part open Harmony: V–I_2–V; I–I_2–I_1; IV | $\hat{I}_2$–V; VI–I_2–I_1; IV_1–I_2–VI; II_1 | I_2–V; II | I_2–V. **B.** Play all the above chords (excepting the last one) at sight, in the corresponding Minor keys. **C.** Construct an 8-measure Period with the following series, in A-flat major, (4-4 Time)—, inserting the I_2 at each *; (attention is again directed to 112, Rule I):

I | * V IV_1 | *II_1 * V | I_1 *I IV | *V | I* I_1 VI | V * IV II_1 | * V * * V | I ‖

D. Construct 4-measure Phrases in G minor, A minor, F-sharp minor, and B-flat minor, (3–4 Time), with the following chords: I | V–I–V | I–I–I | IV–I–V | I‖ substituting I_2 for I at option. **E.** Construct 4-measure Phrases in F and D major (4–4 Time) with the following chords:

I | IV_1–I–II_1–I–V | VI–IV–I–V | VI–I–I–I | I–V–I ‖ substituting I_2 for I where desirable *or necessary.*

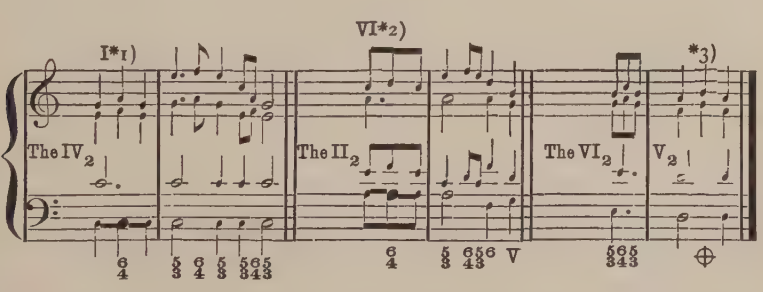
CHAPTER XVIII.

Other Six-four Chords. Melodies.

(Mat. Mus. Comp. §§ 151—160.)

131. As stated in 129, the other Six-four chords are regulated by the same principles of progression as the I_2. But they are still weaker than the latter, and therefore more limited in their employment. The most effective and frequent (to a certain extent "stereotype") connections are those here given:

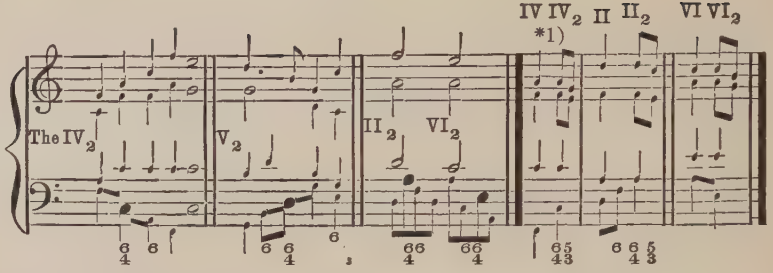
a. In connection with the Triad of the *same Basstone*:



*1) In this connection the 6–4 chord is only an *unaccented embellishment* of the Triad represented by the *stationary Basstone*; thus, the IV_2 embellishes the I (like the I_2 embellishes the V in Ex. 81).—*2) The II_2 embellishes the VI.—*3) This chord-cluster, in C major (with f-natural), is palpably intolerable. The *Dominant* 6–4 chord is nearly, if not quite, the weakest of all.

b. As *Repetition*:

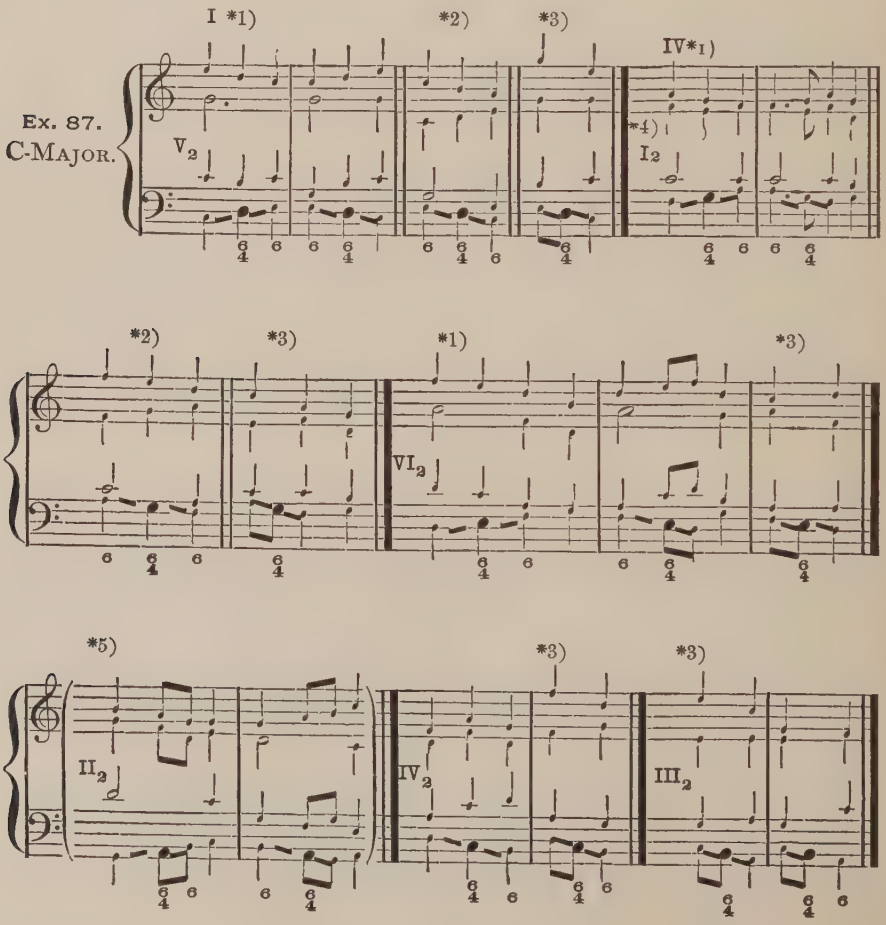
Ex. 86. C-Major



*1) In conjunction with the preceding connection, Ex. 85. Comp. Ex. 82.

c. In *diatonic* connection (with *adjacent Basstones*), in the capacity of Passing Chords:

Ex. 87. C-Major.



*1) Here the Six-four chord is a *Passing chord* (accented or unaccented) between a Triad and its 1st Inversion (in the first measures, $I—I_1$ with intermediate 6–4 chord).—*2) Here the 6–4 chord passes from one 6th to another 6th, in the same direction. Compare 119. *3) The 6–4 chord passes diatonically *downward from a Triad;* this connection is generally made, as here, within a single beat.—*4) The following four measures are a repetition and extension of the illustrations in the preceding chapter, and are introduced here only by way of analogy.—*5) These connections of the II_2 are of doubtful quality.

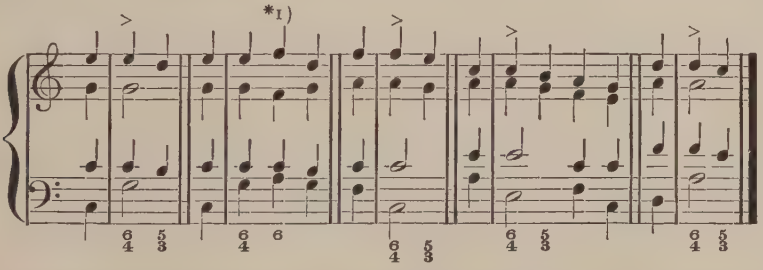
132. It is not necessary to memorize all of these formulae, but merely the few simple *principles* from which they arise. The *relative quality*, or admissibility, of the various examples is very easily determined by testing the *melodic conditions* involved (with reference chiefly to 47 and 58); or — BY EAR! The latter test may safely be left, now, to the student who has mastered the foregoing chapters. See Appendix A, Section 3.

133. The illustrations in Exs. 85, 86 and 87 refer to the *major* mode. *But they are also applicable to* MINOR, *excepting where the II or III appears, and where the 6th and 7th steps of the scale are melodically connected* (in any voice); see 90.

134. In general, the *rhythmic location* of a Six-four chord, on a light or a heavy beat, is entirely optional; but there are cases where the distinction is necessary, viz., in the connections of Ex. 81 and Ex. 85 (the 6–4 chord preceded by the *same Bass-tone*) the 6–4 chord must be UNACCENTED; (see Ex. 81, note *5); in the connections of Ex. 84 the 6–4 chord must be ACCENTED.

135. When a Six-four chord occupies an *accented beat*, it evinces a strong inclination to progress into the Triad of the *same Basstone*. Thus:

Ex. 88.

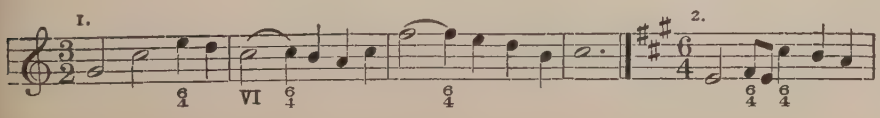


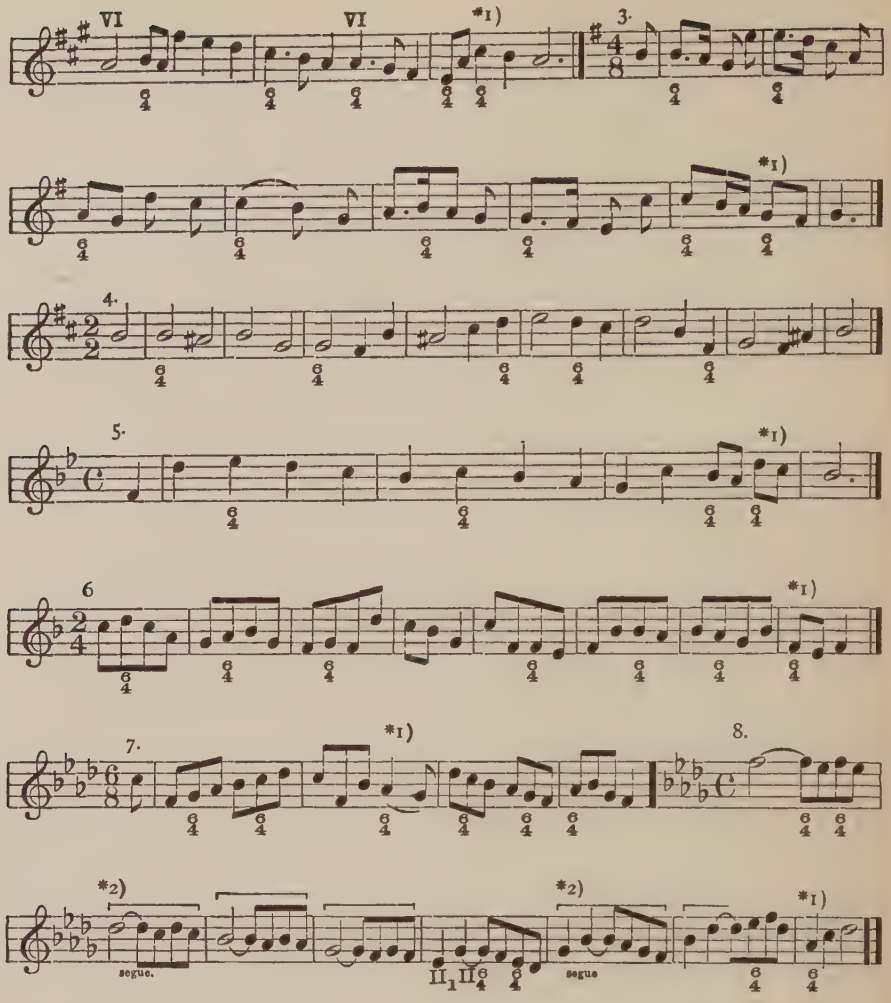
*1) This IV_1 sounds like an *interposed* chord which *defers*, but cannot frustrate, the natural progression $I_2—V$.

Lesson 18.

Harmonize the following Melodies, with Triads and both inversions. Six-four chords *may* be introduced as indicated by the figures $\frac{6}{4}$; these however do not denote *which* 6–4 chord is demanded; the pupil will again be guided principally by the table in Lesson 13. *Or the pupil may ignore these figures, and use his own judgment in choosing the Bass-interval.*

First re-harmonize, according to this chapter, Lesson 10, Nos. 2, 3, 7; Lesson 11, Nos. 1, 4, 3; Lesson 13, No. 1; Lesson 16, Nos. 1, 4, 7.





*1) See 126, second clause.

*2) The brackets indicate Sequences; to be treated as in Lesson 16.

To This Lesson, add Appendix C, No. 5.

DIVISION TWO.

DISCORD-HARMONIES.

Introductory.

(Mat. Mus. Comp. §§ 161—174).

136. The possibility of extending the 3-tone fundamental harmonies, by the addition of another (higher) 3d, was demonstrated in 24, which review. The 4-tone chords thus obtained are designated "Chords of the Seventh" (see 28), because the *new Interval* (which distinguishes its chord in *extent*, *harmonic effect*, and *obligations*, from the consonant Triad) is a SEVENTH:

137. The 7th is a *dissonant* Interval (see 21), and its adoption transforms the Concord into a *Discord*, the pure and simple Triad as independent primary chord, into a restless and dependent harmonic body. The *general* conditions associated with a Discord are given in 25, which review. Besides the latter, the following *special* obligations must be observed:

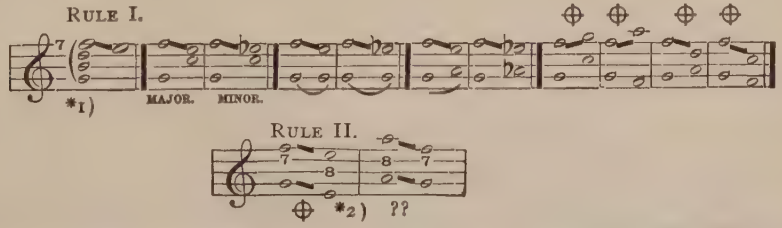
138. RULE I.

A chord-seventh must progress DIATONICALLY DOWNWARD. This is called its "RESOLUTION."

RULE II. The interval of a 7th should not be followed by an 8th, as the succession 7-8 (or 8-7) is usually quite as objectionable as 8-8 (56, Rule II).

RULE III. A chord-seventh need not, and should not, be *doubled*. For illustration:

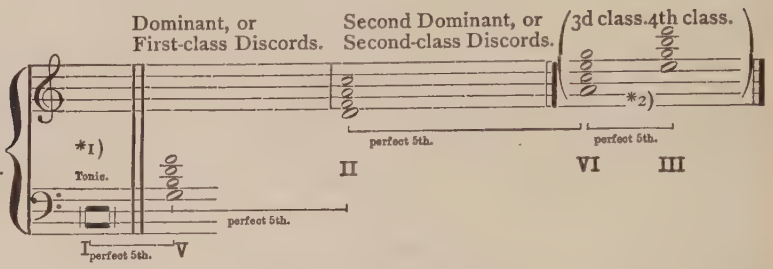
Ex. 89.



*1) In the chord g-b-d-f, the tone *f* is the *chord-seventh* (Ex. 13), and it is therefore *this tone* to which the Rules apply.—*2) Called "Unequal octaves."

139. Any step of the Scale—excepting the Leading-tone—may become the Root of a *Triad*, as has been seen (29). But ONLY FOUR of the 7 steps may be the LEGITIMATE ROOT OF A DISCORD! These are found, and at the same time classified, conformably to the law of tone-relation, in degrees of the perfect fifth, above the Tonic. Thus:

Ex. 90. C-MAJOR.



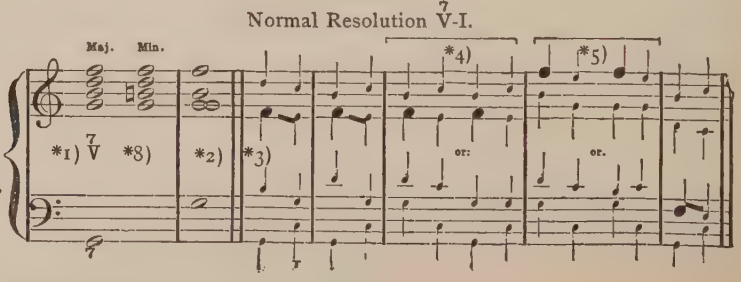
*1) It might be supposed that the *Tonic*-Discords should be the First and best, class (in analogy with 30); but it must be considered, that the Tonic would *inevitably forfeit its independence and the attribute of repose* peculiarly essential to it as "Tonic," the instant it became alloyed with a dissonance. Hence the TONIC harmony is EXCLUSIVELY CONSONANT, and for that reason the FIRST-CLASS Discords must be sought beyond the Tonic, namely, upon the DOMINANT. (When another 3d is added to the Tonic Triad, above or below, it ceases to be a Tonic-harmony and becomes a Third-class Discord!)—*2) The 3d and 4th Discord-classes are extremely rare, and scarcely maintain any appreciable connection with their **Key**.

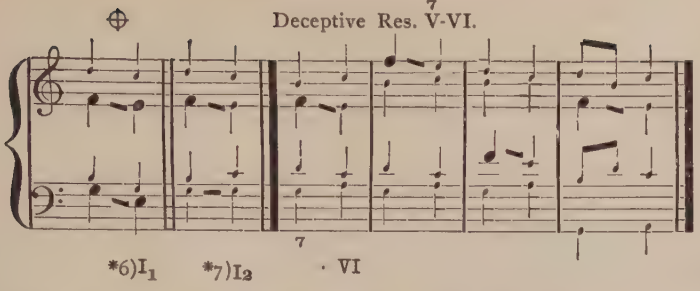
CHAPTER XIX.

The Chord of the Dominant-Seventh.

140. The CHORD OF THE SEVENTH UPON THE DOMINANT is obtained, then, by adding one higher 3d to the Dominant Triad. Its form and general treatment are *identical in Major and Minor*. In keeping with 64, Rule III, its harmonic inclination tends toward the *Tonic* harmonies, namely: the I itself, the I_2, and the VI (see 96) chiefly in Triad-form. The Resolution of the Dom.-7th into the I is called *Normal;* that into the VI, *Deceptive* (comp. Ex. 69, note *3). In performing the Normal Resolution, *the Fifth of the Dom.-7th is often omitted*, and the *Root doubled*. For illustration:

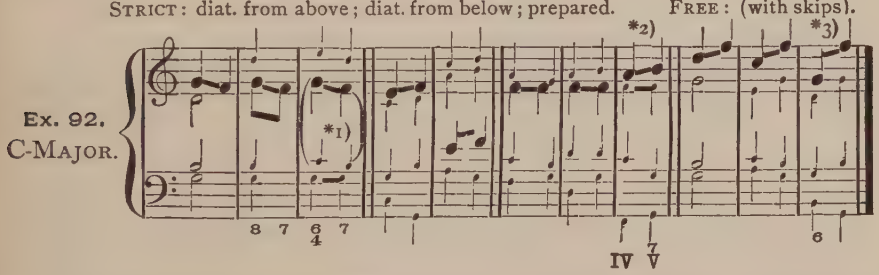
Ex. 91. C-MAJOR AND MINOR.





*1) Marked thus: $\overset{7}{V}$: and called "FIVE-SEVEN."—*2) The Fifth is omitted.—*3) The 7th, which may lie in any part, is here in Alto; it descends to *e* according to 138, Rule I.—*4) If the wide skip in Tenor (measure 2) is to be avoided, the Fifth of *one or the other* of the chords must be omitted.—*5) It is a question whether the Leading-tone (*b* in Alto) *can* progress downward thus; if not, one of the Fifths must be sacrificed.—*6) 138, Rule II; therefore the Res. of the $\overset{7}{V}$ into the *1st Inversion* of the I is not practicable.—*7) Into the *2d* Inv. of the I, however, the $\overset{7}{V}$ may resolve. Comp. 126 a, which may also read "V."—*8) These examples are *all equally applicable to Major* AND MINOR; i. e. *the chord-7th descends either a* WHOLE-STEP *or a* HALF-STEP!

141. The manner in which the Seventh of the Dominant is *introduced* is almost entirely optional. The following modes are however distinguished:



*1) Here parallel 5ths occur, between Alto and Tenor; they are perfectly admissible because one of the 5ths (b-f) is not *perfect*. 56, Rule II, only forbids successive *perfect* 5ths!
*2) N. B! Comp. Ex. 41, note *4).—*3) A skip of 7 tones, as here in Soprano, can only be justified during a Repetition. See Appendix B, 8.

Lesson 19.

A. Write out the $\overset{7}{V}$ in EVERY MAJOR AND MINOR KEY, with its two Resolutions ($\overset{7}{V}$–I and $\overset{7}{V}$–VI), in ordinary 4-part harmony.—**B.** Find and play these chords at the pianoforte in close harmony, without notes.—**C.** Write out the following *Cadence-formulae*, in a number of different Keys (Major or Minor), Time and Rhythm optional:

I–V–$\overset{7}{V}$ | I‖; IV–I_2–$\overset{7}{V}$ | I‖; II–VI–$\overset{7}{V}$ | I‖; III–IV–$\overset{7}{V}$ | I‖; VI–II_1–$\overset{7}{V}$ | I‖; $\overset{7}{V}$–VI–IV_1–$\overset{7}{V}$ | I‖.

CHAPTER XX.

Dominant-Seventh, and its Inversions.

(Mat. Mus. Comp. §§ 175—178).

142. The principle of Inversion is applied to 4-tone chords as well as to Triads, and is effected in the same manner, viz., by placing the Third, Fifth or Seventh in the Bass-part, instead of the Root. Review 108, 109 and 110.

143. The effect of Inversion upon chords of the Seventh is as follows:

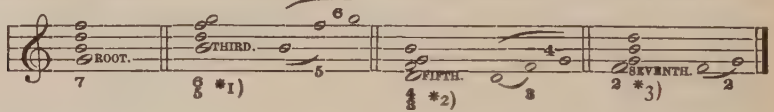
a) When the Bass assumes the THIRD, the chord stands in FIRST Inversion (as usual); the Root and Seventh lie above the Basstone in the intervals of a 6th and a 5th, wherefore the designation "CHORD OF THE SIX–FIVE" is adopted. (Comp. 111).

b) When the Bass has the FIFTH, the chord stands in SECOND Inversion; the Root and Seventh lie respectively a 4th and 3d above the Basstone, giving rise to the designation "CHORD OF THE FOUR–THREE." (Comp. 124).

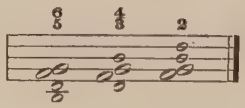
c) When the Bass has the SEVENTH, the chord stands in THIRD Inversion; the Root lies above the Basstone in the interval of a 2d, hence the designation "CHORD OF THE SECOND." For illustration:

FUND. CHORD; (g-b-d-f); 1ST INV. (b-d-f-g); 2D INV. (d-f-g-b); 3D INV. (f-g-b-d).

Ex. 93.

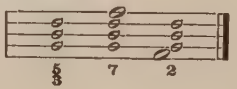


*1) The complete figuring (including the note *d* also) would be, $\frac{6}{5}$; but it is only necessary to indicate the *Root and Seventh*, as these define both the *name and quality* of the chord. These two tones (in this case f-g) are contiguous, and therefore easily distinguishable. In the 1st Inv. they are at the *top*, in the 2d Inv. in the *middle*, and in the 3d Inv. at the *bottom* of the chord-form; thus:



*2) Full figuring $\frac{6}{4}$; review note *1).

*3) Full figuring $\frac{6}{2}$; review note *1). Observe the distinction between the fundamental chord and the 3d Inversion; in the former, the 7th stands *above*, and in the latter *below*, the original Triad:



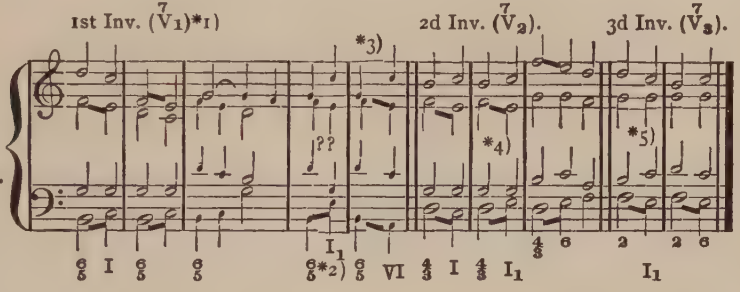
144. These various forms of the Dom.-seventh are extremely important in Harmony, and though differing apparently but very little in effect, they actually possess, respectively, very marked *individual* characteristics, which are of great significance to the discriminating composer, (so much so, that certain Masters are noted for their preference for, or peculiar treatment of, one or the other form of Inversion).

RULE I. The chord-seventh resolves as before, *diatonically downward.*

RULE II. In the Inversions *no Interval should be omitted.*

RULE III. The Inversions of the $\overset{7}{V}$ are limited *almost exclusively to the* NORMAL *Resolution* (into I or I_1); i. e. only $\overset{7}{V}$ *itself* can pass into VI.

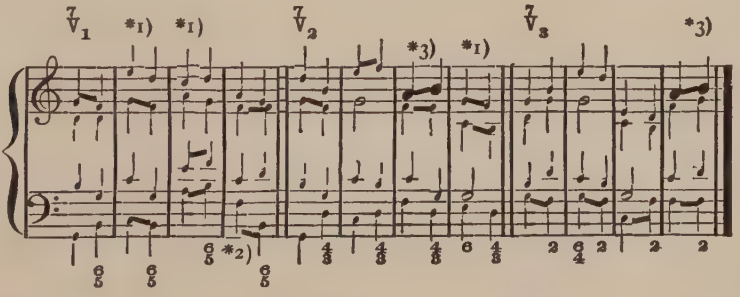
Ex. 94. C-MAJOR AND MINOR.



*1) $\overset{7}{V}_1$—spoken "FIVE-SEVEN-ONE."—*2) An awkward skip from the Leading-tone (in Bass).—*3) The Deceptive Resolution of the *1st Inversion* of the $\overset{7}{V}$, into the VI, is possible in *Major only*, but not frequent. The parallel 5ths which must result, (in this case they are in Alto and Bass) are not inadmissible, because one of them (b-f) is not a *perfect* 5th; See Ex. 92, note *1).—*4) The 2d Inv. of the $\overset{7}{V}$ may resolve either into the I or I_1.—*5) The 3d Inv. can *only* resolve into the I_1, on account of the Seventh in Bass.

145. The introduction of the Inversions corresponds to that of the $\overset{7}{V}$ itself. For illustration (comp. Ex. 92):

Ex. 95. C-MAJOR AND MINOR.



*1) *1) *1) In each of these cases parallel 5ths occur; they are all allowable, because one of the 5ths (b-f) is *not perfect.*—*2) Comp. Ex. 74, note *2).—*3) *3) Comp. Ex. 41, note *4).

Lesson 20.

A. Write out the following chords, in 4-part Harmony as usual; Sopr. optional: (G major and minor) I–$\overset{7}{V}_1$–I; (F major and minor) I_1–$\overset{7}{V}_1$–I; (D major and minor) IV–$\overset{7}{V}_1$–I; (B-flat major) VI–$\overset{7}{V}_1$–I; I–$\overset{7}{V}_1$–VI; (A major and minor) I–$\overset{7}{V}_2$–I_1; (E-flat major and minor) I_1–$\overset{7}{V}_2$–I; (E major and minor) IV–$\overset{7}{V}_2$–I; II_1–$\overset{7}{V}_2$–I_1; (A-flat major) V–$\overset{7}{V}_3$–I_1; (B major and minor) I_2–$\overset{7}{V}_3$–I_1; (F-sharp major and minor) I–$\overset{7}{V}_3$–I_1; (D-flat major) IV–$\overset{7}{V}_3$–I_1; (G-flat major) II_1–$\overset{7}{V}_3$–I_1.—

B. Find and play these chords at the PIANOFORTE (without notes), in close Harmony.

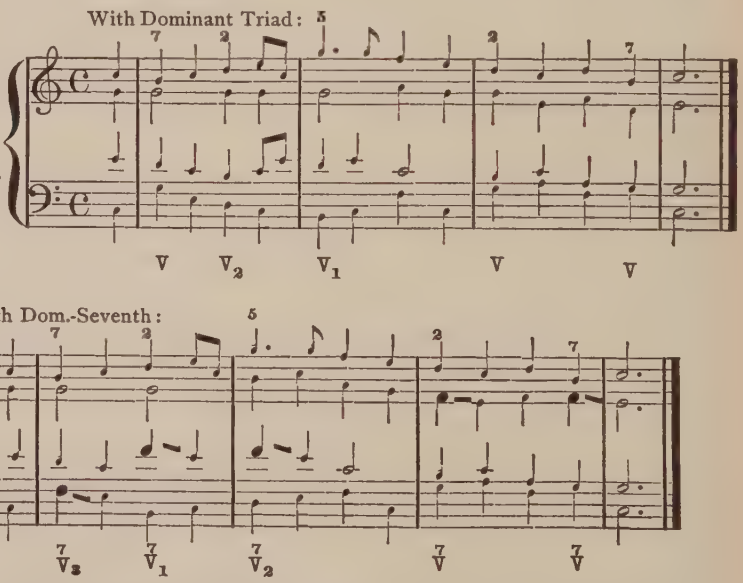
CHAPTER XXI.

Dominant-Seventh and Inversions. Melodies.

146. In applying the Dom.-seventh and its Inversions to the harmonization of Melody, the following facts must be recalled:

FIRSTLY, that the $\overset{7}{V}$ is simply an extended form of the Dominant *Triad* (140); therefore it harmonizes the 5th, 7th and 2d steps of the scale, as substitute for the V. For illustration:

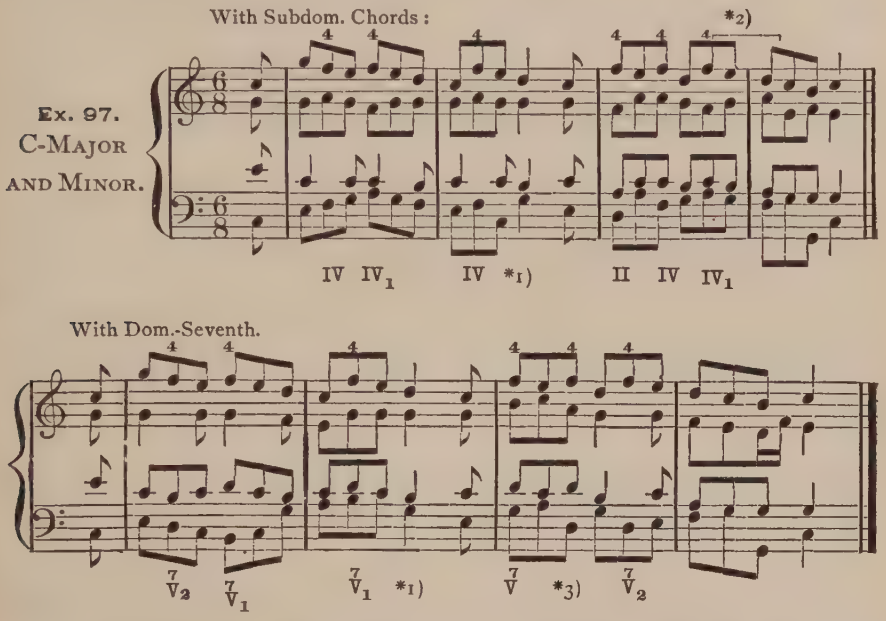
Ex. 96. C-MAJOR AND MINOR.



SECONDLY, that the $\overset{7}{V}$ contains, besides the tones of the Dom. Triad, the *additional chord-seventh*, which is the *4th step of the scale*. There-

fore the 4th step may be harmonized,— not only by the *Subdominant* chords IV and II as heretofore (Ex. 64 b),— but also by the *Dom.-Seventh*. The choice is determined chiefly by the *direction* in which the 4th step progresses; it is only when it *descends diatonically* that the $\overset{7}{V}$ can be employed for this step (138, Rule I). For illustration:

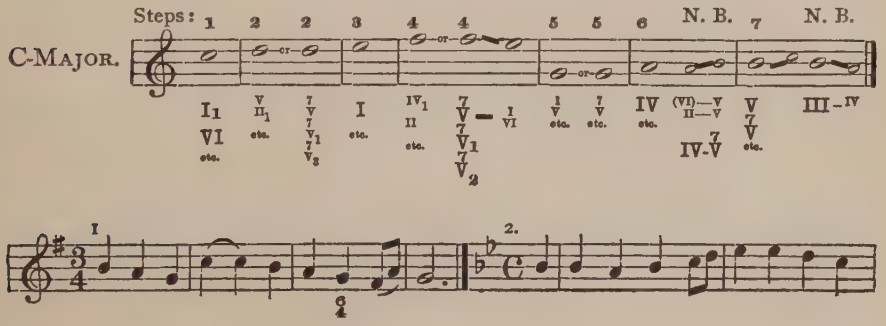
Ex. 97. C-Major and Minor.

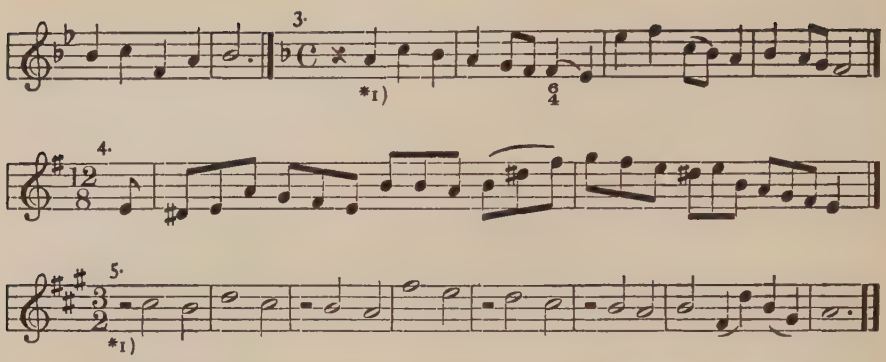


*1) It is not advisable to use a Dom.-*seventh* at the Semicadence; the Dom. *concord* (i. e. the Triad) is much to be preferred.—*2) Comp. Ex. 76.—*3) Here, the 4th step in the Melody must be harmonized with II or IV, because it *leaps* downward to *d*.

Lesson 21.

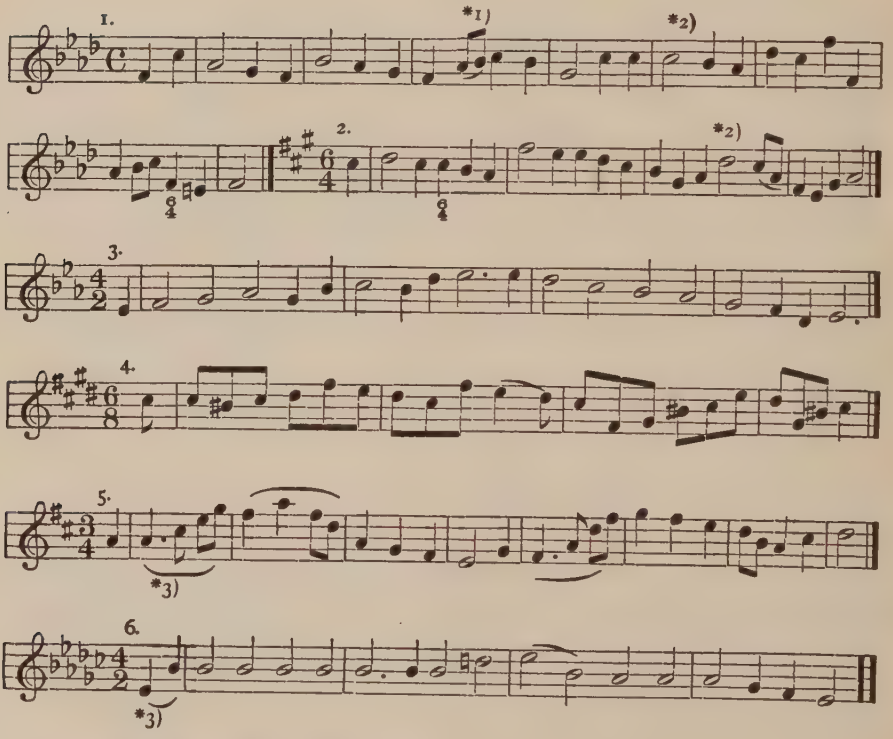
Harmonize the following Melodies, with the $\overset{7}{V}$ and its Inversions; and with reference to this summarized table: See Appendix A:





*1) The Bass begins on the first beat, and the 3 upper parts follow on the second. Also reharmonize Lesson 10, Nos. 2, 3; 11, No. 5; 13, No. 1; 16, No. 1; 18, Nos. 1, 4, 5.

Lesson 22.



*1) Basstone d-flat for both notes (compare Ex. 79, note *4).—*2) One chord, or *two*, at option.—*3) These slurs usually indicate that the tones which they embrace all belong to the same chord. The voices may remain stationary, or may change. The former is preferable, as all active figures in the melody should be accompanied *as quietly as possible*.

CHAPTER XXII.

Dominant-Seventh. Licences.

(Mat. Mus. Comp. §§ 179—181.)

147. When the chords of the Dom.-Seventh are REPEATED, the following licences in the treatment of the chord-seventh are possible (according to 59):

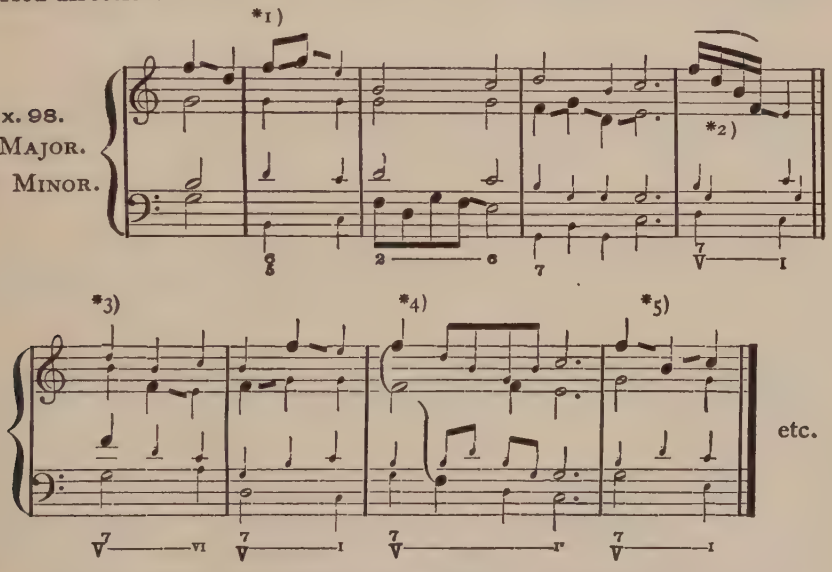
a) **During the repetition of the Dom. chord, the Seventh may pass downward to any reasonable distance, in any part. This movement is equivalent to actual resolution.**

b) **The Seventh may (more rarely) pass upward, (1) in an inner voice, or (2) in either outer part if the latter turns (i. e. downward to the resolving-tone.)**

c) **The Seventh may be briefly doubled, if a repetition follows.**

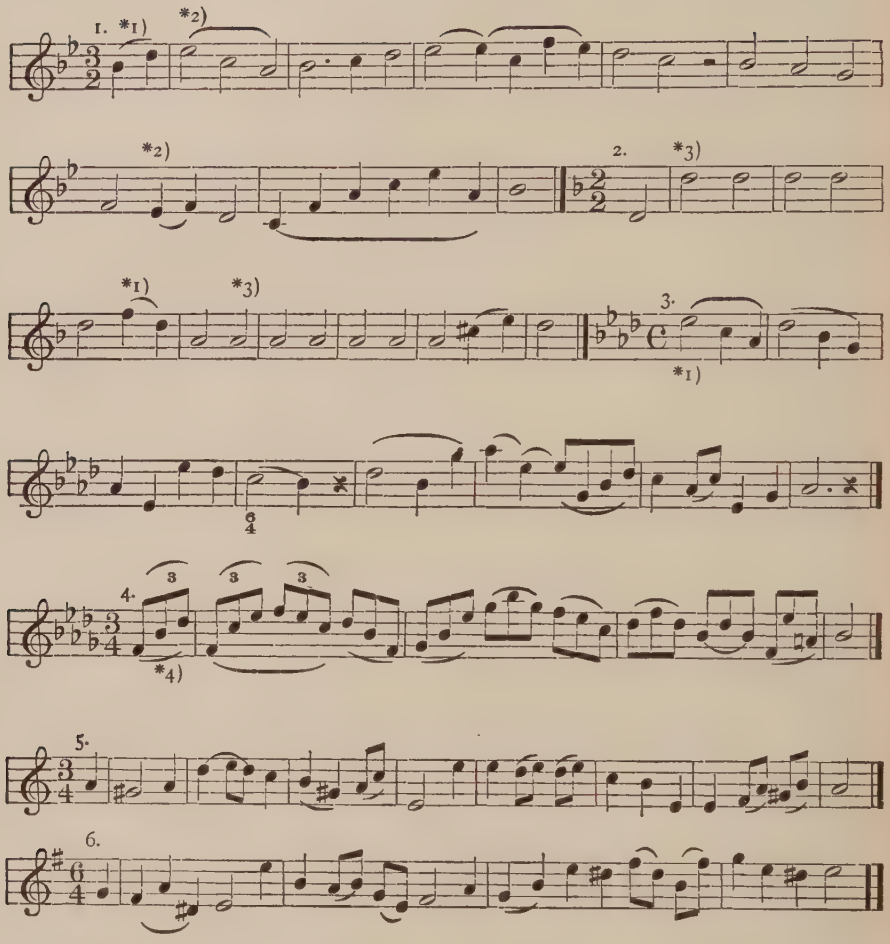
N. B. These regulations all apply to the Leading-tone also, in exactly reversed direction.

Ex. 98. C-MAJOR. AND MINOR.



*1) The 7th (f) instead of progressing immediately into *e*, ascends first into the Root g, *of the same chord*. This ascent of the 7th is allowed in *any* voice if the resolving-tone follows.—*2) A figure often encountered in Pianoforte-music, the style of which usually differs from vocal music in greater freedom both in the *location and treatment* of the parts.—*3) The 7th (f) in Tenor passes downward to *d* and then on to *c*. The resolving-tone *e* is entirely evaded in that voice. *4) The Seventh is *doubled*, casually, *before* its resolution takes place.—*5) A not uncommon exception to the Rule; the 7th in Soprano does not reach *e* in that voice, but, progressing to the Leading-tone *b*, the inclination of the latter overpowers the former, wherefore *c* follows. The *e* appears in Bass.

Lesson 23.



*1) Slurs usually indicate that the tones belong to the same chord. The choice (and number) of changes in chord-*form* are optional.—*2) Here the 4th step (e-flat) is to be harmonized with the $\overset{7}{V}$, although it does *not* descend *diatonically* into the 3d step (as conditioned in 146, Secondly). The reasons are obvious.—*3) A different Basstone for each repetition of the Soprano note.—*4) Pianoforte style. Change lower voices at each slur.

To This Lesson, add Appendix C, No. 6.

Lesson 24.

Construct 4-measure Phrases with the following chords, in Duple and Triple Time alternately, and in at least 4 *alternate* major and minor Keys; the *Rhythm*, the *chord-form*, and the Inversions (Bass) *of every V* optional, as usual. See directions, Lesson 14 A; Preface, I:

I–V–V–V–I–V–I–IV–II_1–V–V–V–V–I.

CHAPTER XXIII.

Dom.-Seventh. Other Licences.

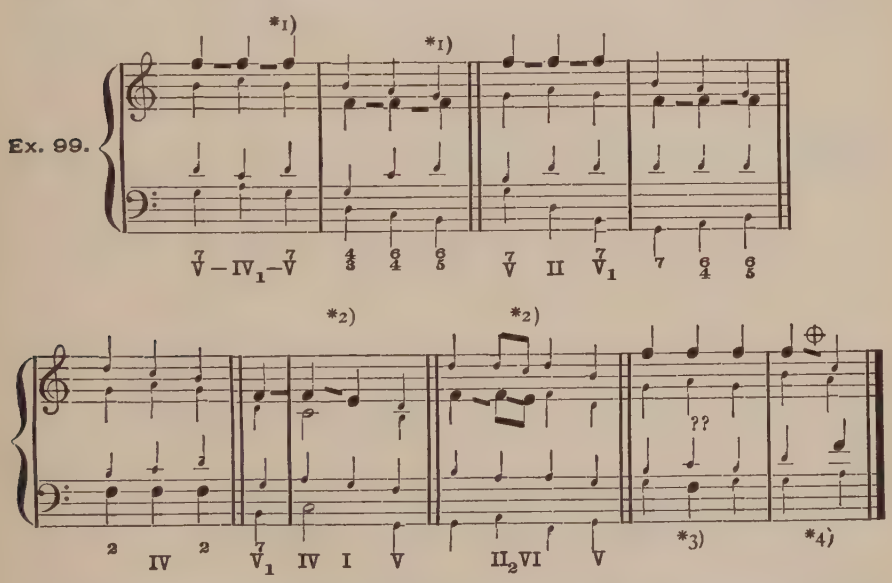
(Mat. Mus. Comp. §§ 182—185).

148. Besides the above Licences, naturally attendant upon chord-repetition, there are two others of a more irregular nature, viz., the STATIONARY seventh, and the ASCENDING resolution.

149. The chord-seventh may be *held* (stationary) in the same part, while the $\overset{7}{V}$ progresses into either *Subdominant* chord (IV or II). The harmonic progressions $\overset{7}{V}$–IV, and $\overset{7}{V}$–II, are exceptions to 64, Rule III; compare Ex. 45, and Ex. 61, note *5); but they are rendered feasible by the connecting-link which the stationary Seventh affords. Being "irregular" however, they require *subsequent justification* by an immediate (or early) *return to the Dominant harmony.* (See again the context of Ex. 45).

RULE. The chord-seventh, during this change of harmony, ***must remain undisturbed in the same voice***, and must not be *doubled*. For example:

Ex. 99.



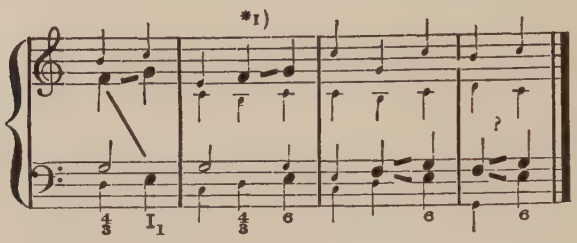
*1) After the irregular progression $\overset{7}{V}$–IV, the $\overset{7}{V}$ returns.—*2) The irregular progression is followed by a Tonic chord (I or VI); but the V soon after reappears.—*3) The f in Bass *disturbs* the stationary 7th, and is very objectionable. Comp. 138, Rule II.—*4) Contrary to the Rule.

---

150. The chord-seventh may ASCEND (and resolve) DIATONICALLY,

when the *Bass-part* accompanies it in *parallel thirds*. For illustration:

Ex. 100.

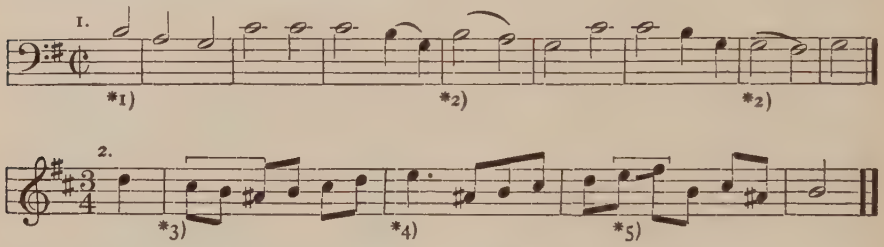


*1) See Ex. 95, note *1).

Lesson 25.

A. Write out the following chords (open 4-part harmony, as usual) in alternate major and minor Keys, using uniform quarter-notes or half-notes:— $\overset{7}{V}$–IV_1–$\overset{7}{V}_1$–V | I; $\overset{7}{V}_1$–IV_2–$\overset{7}{V}_2$–I_1; $\overset{7}{V}_1$–II_2–$\overset{7}{V}$; $\overset{7}{V}_3$–IV–$\overset{7}{V}_3$–$\overset{7}{V}_1$ | I; $\overset{7}{V}_2$–II–$\overset{7}{V}_1$; $\overset{7}{V}$–IV_1–I_2–$\overset{7}{V}_3$–I_1; $\overset{7}{V}_1$–$\overset{7}{V}$–II_2–VI; I–$\overset{7}{V}_3$–$\overset{7}{V}_2$–IV_2–I.

B. And harmonize the following Melodies:



*1) *Tenor;* add other 3 parts.—*2) Tonic 6-4-chord; see 126, second clause.—*3) According to Ex. 99.—*4) Three Basstones.—*5) According to Ex. 100.

To This Lesson, add Appendix C, No. 7.

CHAPTER XXIV.

The Incomplete Dom.-Seventh.

(Mat. Mus. Comp. §§ 186—189).

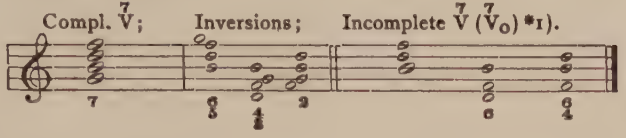
151. The term "*Incomplete*" is employed by the Author to signify the *omission of the* Root *of a chord.*

152.

The chord of the Dom.-Seventh is very frequently used thus, without its Root, as TRIAD UPON THE LEADING-TONE.

(See Ex. 17, note *2). Thus:

Ex. 101. C-Major and Minor.



*1) The o denotes the Incomplete form.

153. The strongest proofs that the Leading-tone Triad is simply an Incomplete *Dominant-Seventh* consist in the facts,

that it contains the most essentially characteristic feature of all Dom. harmonies, viz. the Leading-tone;
and that its harmonic movements coincide in every respect with those of the Complete $\overset{7}{V}$.

154. The $\overset{7}{V}_o$ is a Diminished Triad (because its Fifth is diminished); therefore, *like the II of the minor mode*, it is very seldom used in the Triad-form (see 102 a).

The best form of all Diminished Triads is the *1st Inversion* (chord of the 6th).

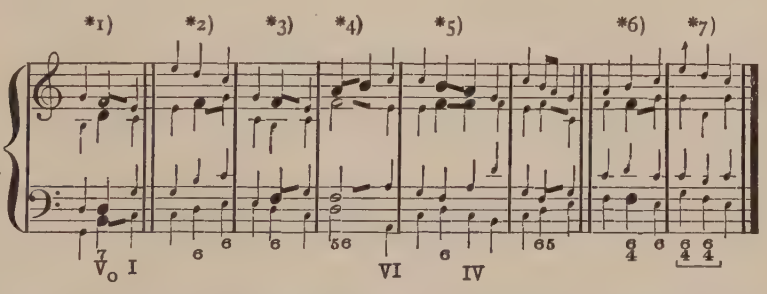
The 2d Inversion is also available, but inferior to the 1st.

155. Rule I. The $\overset{7}{V}_o$ is alike in Major and Minor, both in form and *general* treatment. Its progressions correspond to those of the $\overset{7}{V}$ itself.

Rule II. Any Interval may be doubled, excepting the Leading-tone.

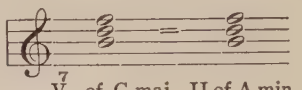
Rule III. The dissonance (dim. 5th), generally *descends*, but may also ascend. For illustration:

Ex. 102. C-Major. *8)



*1) Triad-form; rare.—*2) 1st Inversion.—*3) The dim. 5th (f) is doubled; (*f* is a Principal tone of the scale; comp. 51, Rule); one ascends and the other descends.—*4) Comp. Ex. 60, note *4).—*5) Comp. Ex. 67.—*6) The 2d Inversion; treated like any other 6-4 chord.—*7) A succession of 6-4-chords, contrary to 129, Rule II. This is always permitted when one of the 6-4 chords is a *Discord*, as here.—*8) Also applicable to Minor, excepting where the 6th and 7th steps are melodically connected,— as in measures 4, 5, 6, 7.

156. This chord ($\overset{7}{V}_0$ of C) will be found to coincide exactly with *the II of the Relative Minor scale*, thus:



$\overset{7}{V}_0$ of C maj. II of A min. (and C min.).

These are the only *legitimate Dim. Triads* in Harmony; their coincidence is of great importance in Modulation, and must therefore be carefully observed.

157. In addition to what has already been learned, casually, of THE II IN MINOR (Lesson 16, note *2), the following must be considered:

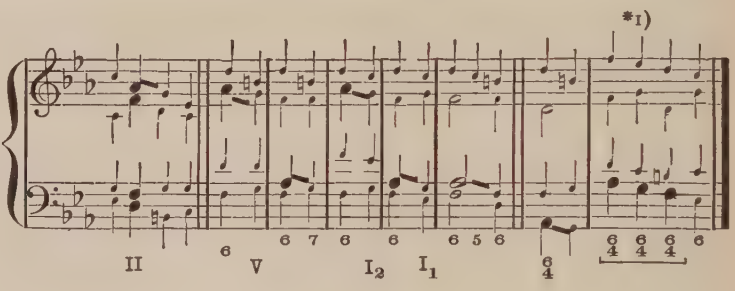
a) The best form is the *1st Inversion*. The 2d Inversion is also available; but the Triad is very rare (154).

b) Either the Root or the Third may be doubled.

c) The diminished 5th resolves *downward*.

d) The best progressions are: II_1–V; II_1–$\overset{7}{V}$; II_1–I_1; II_1–I_2.—For example:

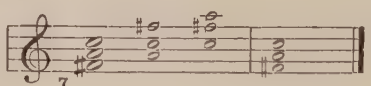
Ex. 103. II IN MINOR.



*1) Comp. Ex. 102, note *7).

Lesson 26.

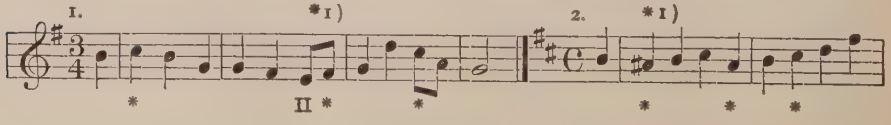
A. Write out the $\overset{7}{V}_0$ of every Major Key (with its Inversions), and note the Relative Minor in which it is the II, thus:

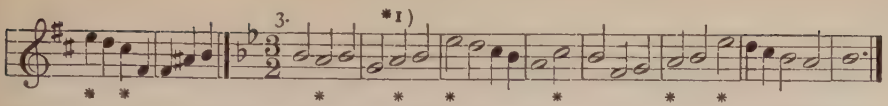


$\overset{7}{V}_0$ of G. II of E min.

B. Find and play these chords at the Pianoforte, without notes.—

C. Harmonize the following Melodies; $\overset{7}{V}_0$ at each * (Inversion optional):

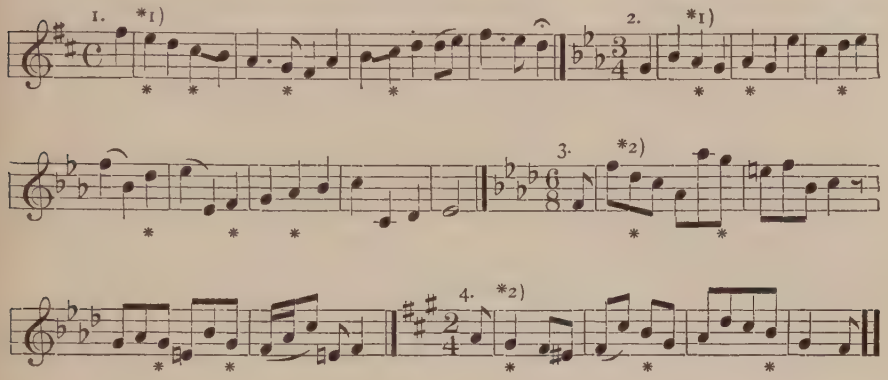




*1) Observe that the Leading-tone in Soprano may *always* (if necessary) be harmonized with a chord of the 6th ($\overset{7}{V}_0$ inverted).

Lesson 27.

Re-harmonize Lesson 10, No. 3; 11, No. 6; 13, Nos. 1, 6; 16, Nos. 1, 3; 21, Nos. 1, 2; 22, Nos. 3, 4.—And harmonize the following:



*1) $\overset{7}{V}_0$ at each * (Inversion optional).—*2) II at each * (Inversion optional).

CHAPTER XXV.

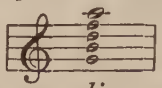
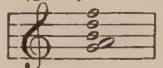
Dominant-Ninth, Major.

(Mat. Mus. Comp. §§ 192—202).

158. According to 24 (which review) the chords of the Seventh may further be extended from 4 to 5 tones. In the latter case they are termed "Chords of the Ninth" (28), because the new and distinctive Interval is a 9th from the Root.

159. A Five-tone chord may be erected upon each of the four fundamental steps (V, II, VI, III) as defined in Ex. 90 (which review, with context), and they are classified accordingly, that of the *Dominant* belonging to the First Class.

160. The Chord of the Ninth upon the Dominant is obtained, then, by adding one higher 3d to the Dom.-Seventh (comp. 140). This demonstration of the origin of the fifth (uppermost) Interval is of essential

significance, as it determines the correct *location of the 9th*, in relation to its Root. For illustration: in the 5-tone chord  obtained by superposing one more 3d, (over the 4 tones g-b-d-f), the tone *a* is removed from the Root (g) by a distance *exceeding an octave;* the *a* immediately above the Root  has no legitimate place in this chord. Hence the distinction which must here be made between a 2d and a 9th (see Ex. 6, note 3).

161. Like all Dom. chords, the Dom.-ninth tends towards the Tonic harmony. The details of its treatment are governed as follows:

RULE I. The chord-ninth may never lie less than 9 tones above the Root.

In Major, the Ninth of the Dom.* is rarely placed in any other voice than *the Soprano.

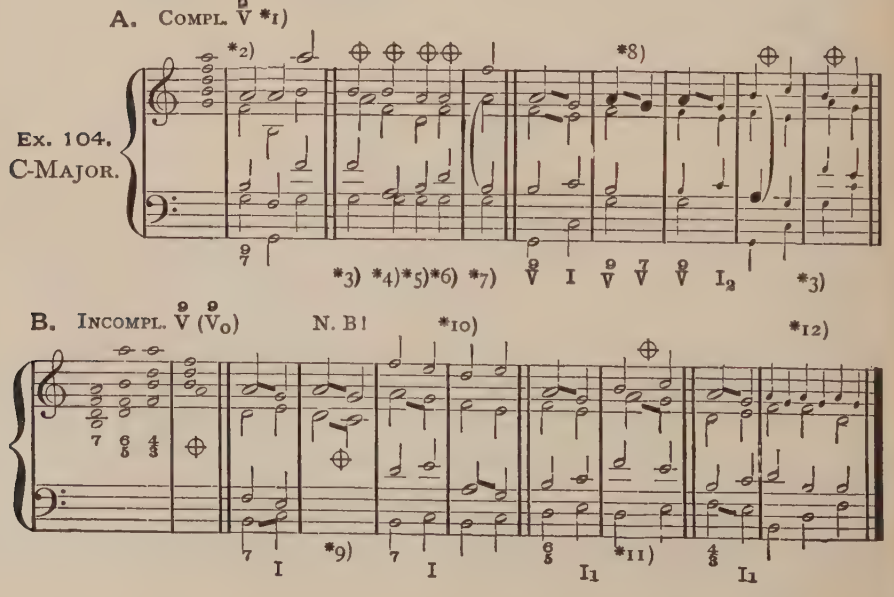
RULE II. The Ninth resolves *diatonically downward*, like the Seventh.

RULE III. In the COMPLETE chord, the Root is generally given to the Bass-voice; and the 5th (*never the 3d nor 7th*) is omitted.

RULE IV. In the INCOMPLETE chord, i. e. the CHORD OF THE SEVENTH UPON THE LEADING-TONE (see 151, 152), which is THE BEST AND MOST FREQUENT FORM, the original Root is omitted, and the Bass can take either the 3d, 5th or 7th (never the 9th).

No Interval of the Incomplete chord can be doubled, and consequently none are omitted. For illustration:

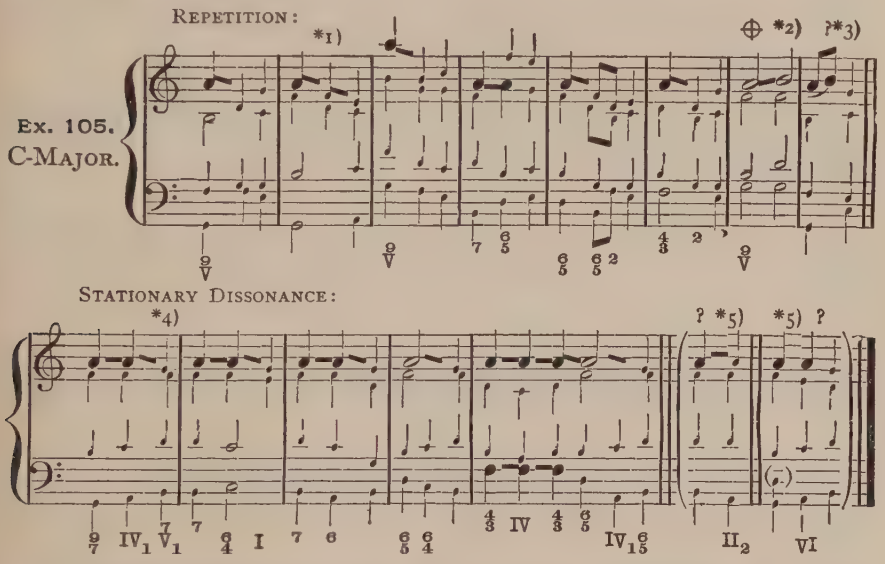
Ex. 104. C-MAJOR.



*1) "Five-nine."—*2) Ninth in Soprano (Rule I).—*3) *9th below the Leading-tone* is always objectionable!—*4) Rule I.—*5) 7th omitted (Rule III).—*6) 3d omitted.—*7) Possible; but comp. note *2).—*8) The 9th may be resolved alone.—*9) These parallel 5ths are perhaps the most insidious in the whole range of Harmony. In resolving the *Inc.* $\overset{9}{V}$ *of Major into the I*, be more than usually vigilant. The most efficient expedient is, to *double the 3d of the I!*—*10) 9th in a middle voice, instead of Soprano; admissible, subject to note *3).—*11) See note *3).—*12) See note *8).

162. The Licences in the Resolution of the $\overset{9}{V}$ and $\overset{9}{V}_0$ correspond in general to those of the $\overset{7}{V}$ (147, 149, which review). Namely:
during *Repetition* the Intervals may be exchanged and transferred;
and the dissonances may be held (stationary), during the progression into the IV. For example:

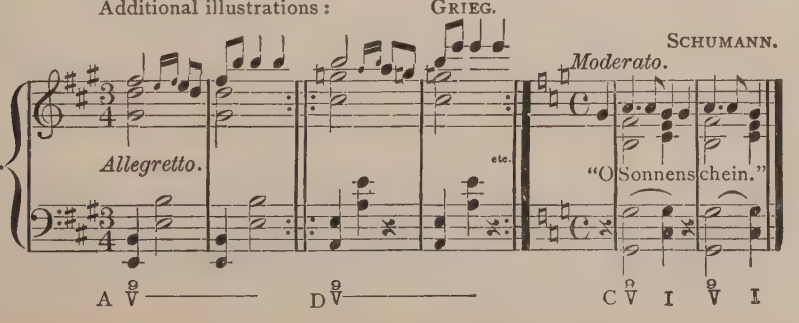
Ex. 105. C-Major.



*1) When the 9th progresses thus into the 7th, the *latter*, in descending, resolves them both. In the next measure the 9th leaps downward into the Leading-tone; comp. Ex. 98, note *5).—*2) The 6th step (a) as *Dom.-Ninth*, should not progress *upward* (into *b*), for obvious reasons.—*3) In such rapid succession this may be justifiable.—*4) A *Dom.* chord; comp. Ex. 99, note *1). The next measure, $\overset{9}{V}$–IV–I, is however also possible.—*5) These transitions into II or VI are doubtful.

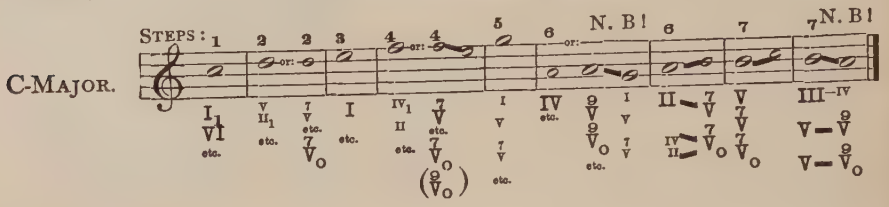
Additional illustrations: Grieg. Schumann.

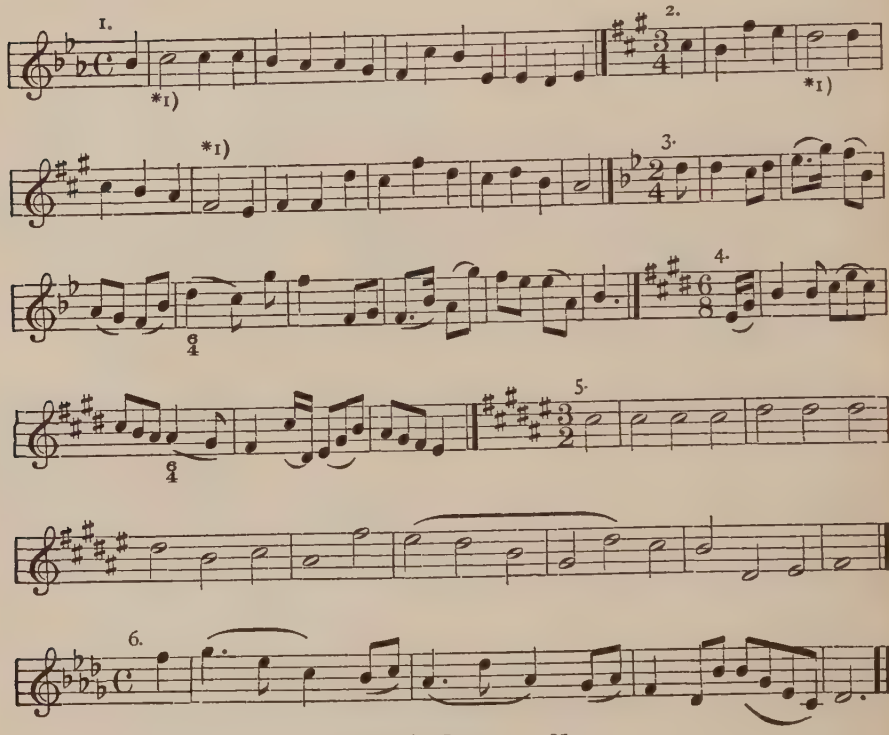
Ex. 106.



Lesson 28.

A. Write out the $\overset{9}{V}$ and $\overset{9}{V_0}$ in every major Key. **B.** Harmonize the following Major Melodies, with reference to this summarized table (comp. Lesson 21):





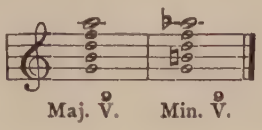
*1) Two Basstones.—Also re-harmonize Lesson 22, No. 2.

CHAPTER XXVI.

Dominant-Ninth in Minor.

163. The ninth of the Dominant, being the *6th step of the scale*, undergoes modification in the Minor mode (85), so that the chord of the *Dom.-*

ninth, unlike all other Dominant chords, *differs externally in Major and Minor* (Comp. 88, 140, 155 Rule I). Thus:

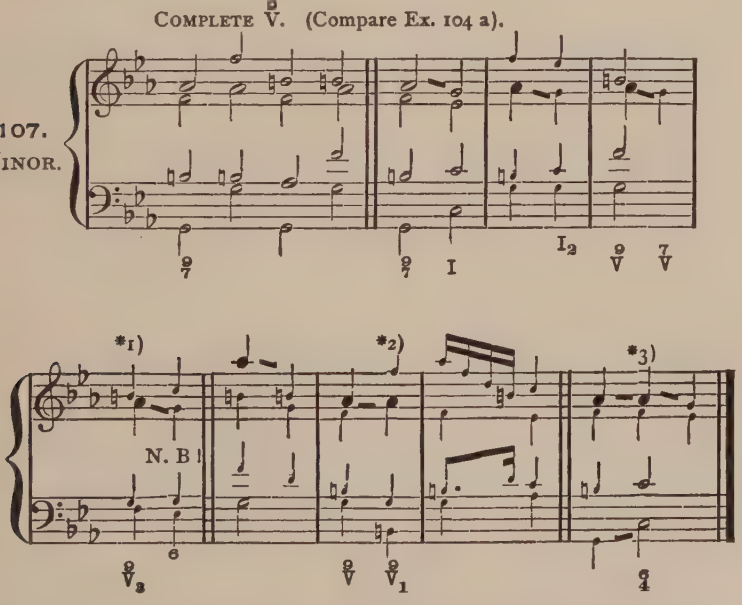


164. The transformation of the 9th from a major to a minor interval does not alter, but rather confirms, its obligations, and facilitates its treatment in certain respects. *The Rules given in 161, and in 162* (which carefully review) *are also valid for the Minor Dom.-Ninth, with one exception, viz.*,

THE NINTH OF THE MINOR CHORD may lie in EITHER MIDDLE VOICE, quite as well as in the Soprano.

But it is very rarely placed in the *Bass;* and, as usual, is never *less than a 9th from the Root* (in the Complete chord). For illustration:

Ex. 107.
C-Minor.



*1) The 3d Inv. of the *Complete* Dom.-Ninth (i. e. 7th in Bass). As extraordinary as this chord looks (and sounds), it is nevertheless perfectly correct.—*2) The 1st Inv. of the Compl. V. See note *1). These unusual forms are somewhat more easily obtained in Minor than in Major.—*3) Stationary dissonances. Here a 6-4 chord is exceptionally introduced with a leap in Bass (Comp. 129, Rule I; and 130).

The Chord of the Diminished-Seventh.

(Mat. Mus. Comp. §§ 203—205).

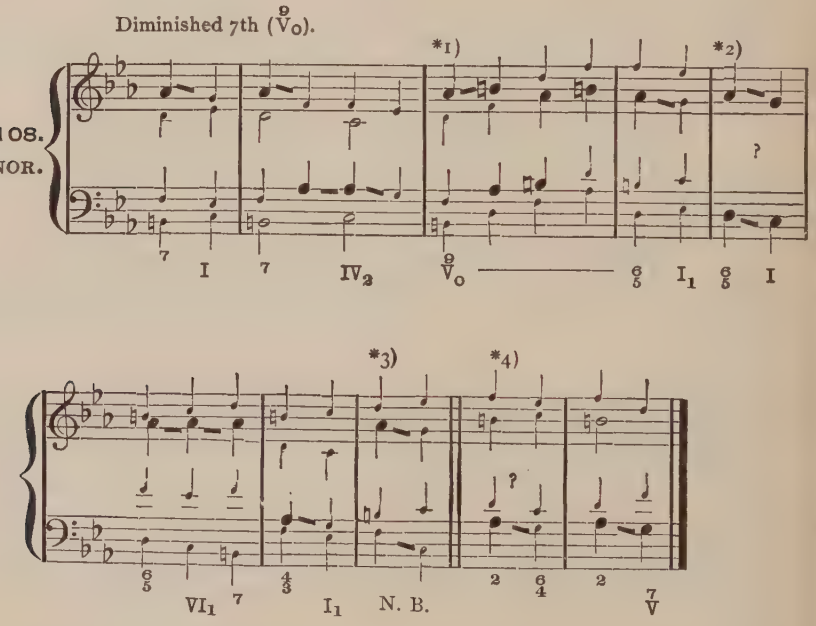
165.

The *Incomplete Dom.-Ninth*, or the chord of the Seventh upon the Leading-tone *in the Minor Mode*, is a CHORD OF THE DIMINISHED-SEVENTH.

(So-called because it is the only legitimate chord which contains the peculiar interval of a dim. 7th). It is one of the most frequent and important forms of the Dom. harmony, distinguished alike for its fascinating effect and its almost incredible flexibility. (See Ex. 129, note *1).

166. The treatment of the chord of the Dim. 7th coincides with that of the Compl. $\overset{9}{V}$. The 9th (i. e. the 7th from the Leading-tone) may lie in *any voice, either above or below the Leading-tone* (but it should nevertheless be avoided in the *Bass* voice, as much as possible); and it resolves diatonically downward. For illustration:

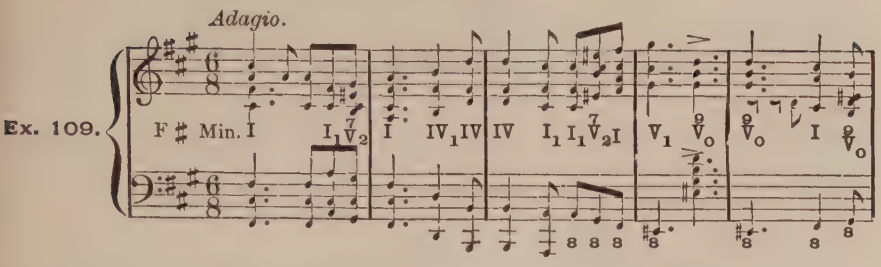
Ex. 108. C-MINOR.



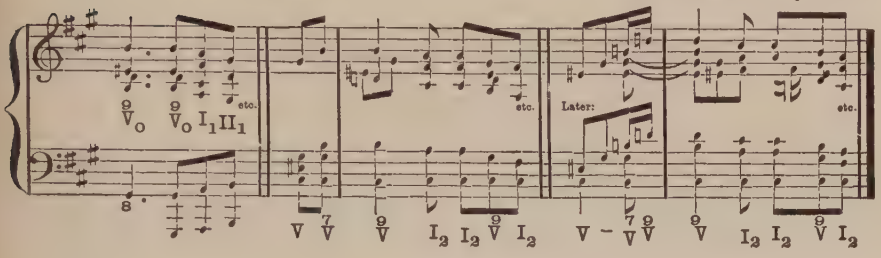
*1) The false melodic progression from the 6th step to the 7th, in Minor (see 90), is here *justified by Repetition*.—*2) Even in Minor, where one of the 5ths is imperfect, these parallels are deprecated. Comp. Ex. 104, note *9).—*3) The f in Bass is actually the 7th of the chord, wherefore its best progression is *diatonically* downward. But comp. Ex. 102, measure 6 (alto), and 155, Rule III.—*4) The original 9th in Bass is objectionable, because it gives the *weakest* chord-form. It is best in Repetitions.

Additional illustration, for Analysis:

Ex. 109.



Later: BEETHOVEN. Op. 106.



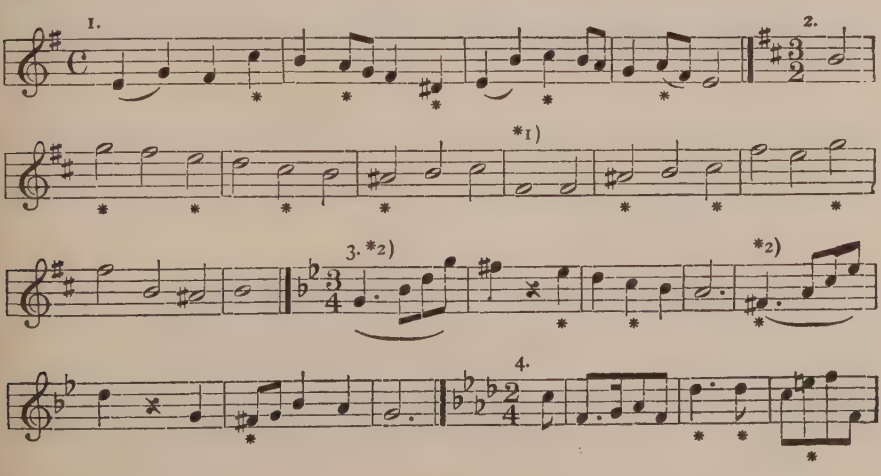
Lesson 29.

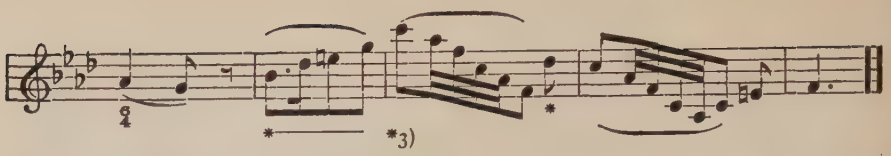
A. Write out the $\overset{9}{V}$ complete in every Minor Key.—**B.** Write out the chord of the Dim. 7th, and its Inversions, in every minor key.—**C.** Find and play these chords at the Pianoforte, without notes.

Lesson 30.

A. Re-harmonize Lesson 11, Nos 4, 5, 6; 16, Nos. 4, 7; 18, Nos. 4, 7; 21, No. 4; 22, No. 4.

B. Harmonize the following Minor Melodies, using the $\overset{9}{V}$ (occasionally Complete but *chiefly Incomplete*) at each *:





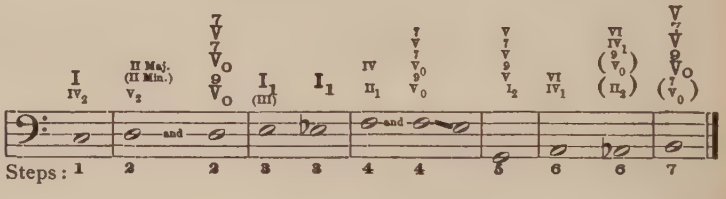
*1) Two Bassnotes.—*2) Lower voices 𝅗𝅥.—*3) Lower voices 𝅘𝅥 𝅘𝅥 𝅘𝅥, and the same in the next measure.

CHAPTER XXVII.

Unfigured Basses.

167. In adding the three upper parts to an *Unfigured Bass*, the same general rules must be observed as in adding three lower voices to a given *Melody*. The two processes, though inverse, are nearly identical. The following table (which *compare carefully* with that given in Lesson 28) will therefore suffice:

Ex. 110. C-Major and Minor.

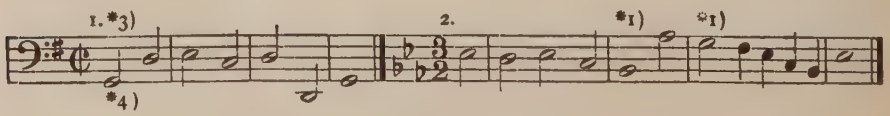


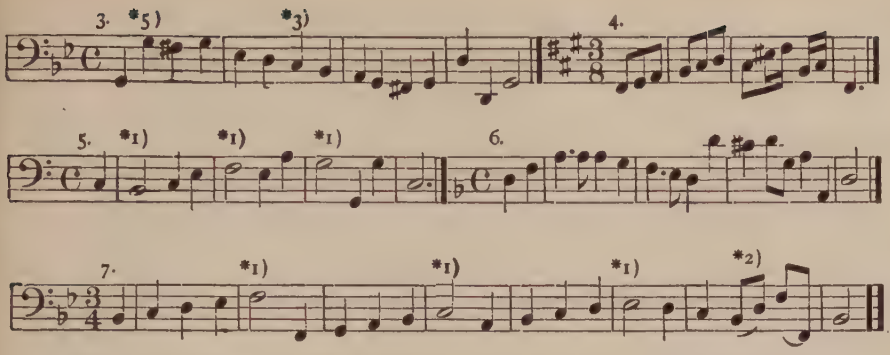
168. Besides which, however, the following generalities must be recalled and borne in mind:— The Bassnote is not as likely to be the chord-*Fifth*, as it is to be the Root, Third or Seventh.—The Leading-tone is not likely to be a "Root apparent" (see 154), as $\overset{7}{V}_0$. And *in Minor*, neither the 2d nor 3d steps are likely to be Roots.

In all Minor Basses, use the Incomplete Dom.-Ninth (chord of the Dim. 7th) *very freely*.

Lesson 31.

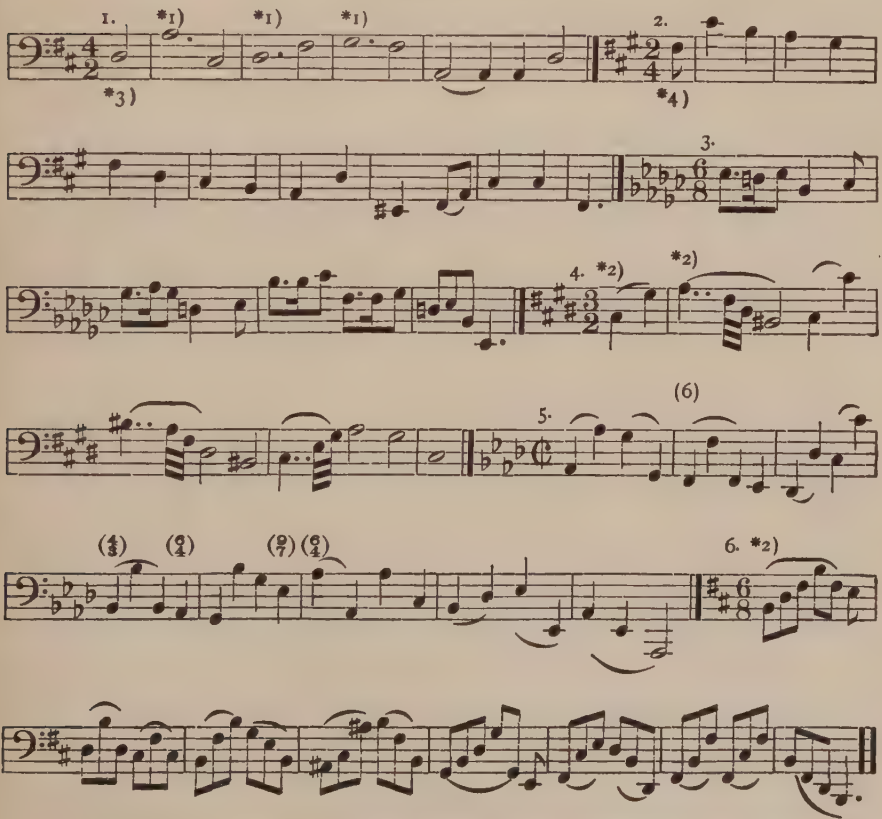
Add Soprano (and then Alto and Tenor) to the following Basses; See Appendix B, and Preface, I:





*1) Two melody notes.—*2) One Melody-note to each slur.—*3) Stems down.
*4) Basses 1, 2 and 5 in *minor* also.—*5) All minor Basses in two ways.

Lesson 32.



*1) Three Melody notes.—*2) Close Harmony. *Strict attention to the slurs;* one Melody-note to each.
*3) Also in *minor*.—*4) In two ways.

CHAPTER XXVIII.

Chord of the Diminished-Seventh, Continued.

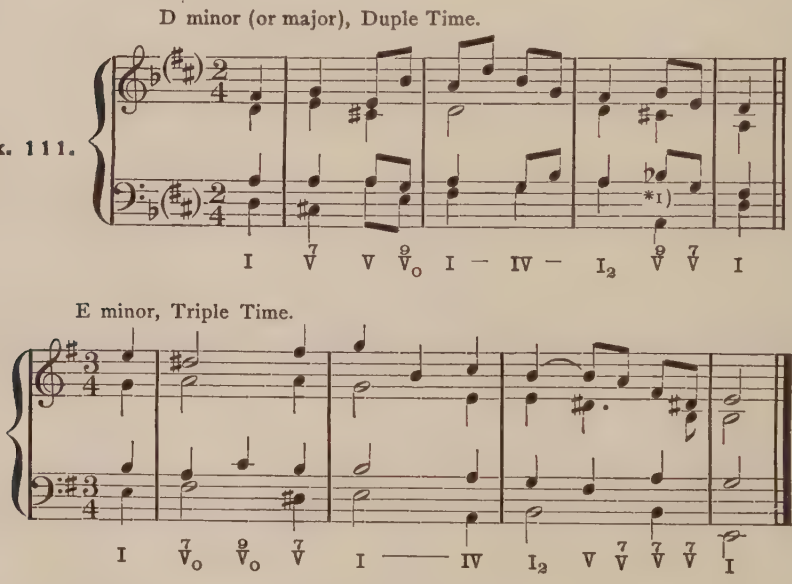
169. In working out the next lesson, the student will put the broadest possible construction upon the term "Dom.", and determine at his own discretion the FORM (V, $\overset{7}{V}$, $\overset{7}{V_o}$, $\overset{9}{V}$, or $\overset{9}{V_o}$) and the INVERSION (Bassnote) of each Dom.-chord, giving preference, however, to the *Chord of the Dim.-Seventh.* The RHYTHM (arrangement and repetition of the given chords in the measure and beat) is also quite optional. The following example will serve as a model:

Given the chords

I | Dom. | I–IV | I_2–Dom. | I ‖

Solution:

Ex. 111.



*1) Minor only. In major the Tenor might take *a* or *e*.

Lesson 33.

A. Construct two Phrases (at least) in different *Minor* keys (alternating between Duple and Triple Time) with each of the following chord-series (filling out the measures with REPETITIONS); follow closely the directions given in Lesson 14 **A**, AND SEE PREFACE, I:

$(\frac{4}{4}$ and $\frac{6}{8})$ I–Dom.–I | Dom.–VI–Dom. | I–Dom.–I–II_1 | Dom.–I ‖

$(\frac{\text{¢}}{\text{¢}}$ and $\frac{3}{8})$ I–IV | Dom.–IV–Dom. | I–II–Dom. | I ‖

$(\frac{4}{4}$ and $\frac{3}{2})$ I | Dom. | I–II_1 | I_2–Dom. | I ‖

B. Construct two (or more) Periods, in *Minor*, with the following chords, using the DIM. SEVENTH at each *; everything else optional:

$(\frac{3}{4}$ and $\frac{4}{8})$ I–*–I | *–IV–V | I–*–I | $\overset{\frown}{V}$ | *–IV–* | * *–I | II_1–I_2–V | I ‖

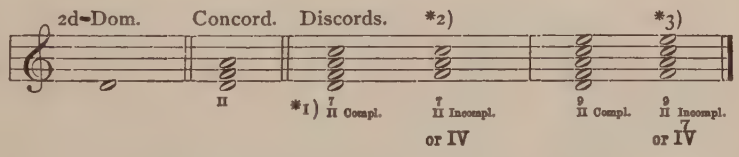
CHAPTER XXIX.

Second-Class Discords.

(Mat. Mus. Comp. §§ 206—211).

170. The fundamental tone of the 2d Discord-class must be sought one perfect 5th higher than the Dominant, or TWO PERFECT 5THS ABOVE THE TONIC; it is therefore the SECOND STEP OF THE SCALE. Review Ex. 90, and context. The 2d class comprises the same number and forms of chords as the Dominant class, viz., the chord of the Seventh, Complete and Incomplete; and the chord of the Ninth, Complete and Incomplete (to which may be added, the consonant 3-tone chord, or Triad). Thus:

Ex. 112. C-MAJOR.



*1) "TWO-SEVEN."—*2) The $\overset{7}{II}$ without its Root proves to be the Subdominant Triad, the IV! See next paragraph.—*3) Called "FOUR-SEVEN."

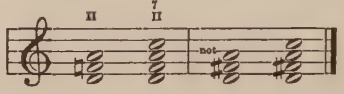
171. It is now necessary to revert to Ex. 17, note *1, and 93, (which see), and elucidate the apparent contradictions which are presented by the Subdominant or Second-class body of chords. About the *Discords* of this Class there is no uncertainty, but the *Concords* (II and IV) as has been seen, do not, in practice, preserve their actual theoretical co-relations with full emphasis. From the above Example it is now theoretically apparent that the TRIAD II is the Principal representative of the "Subdominant" harmony, while the IV is only an Incomplete form of the $\overset{7}{II}$. This confirms the theory that no chord-Root can be accepted upon any perfect 5th BELOW the Keynote. Practically considered, preference is likely to be given to the IV, because of its superior *proximity* to the Tonic. The degree of prominence which either of these two equally-poised chords assumes, depends upon the accidental emphasis given to

the tones *d* or *f* respectively. The following table illustrates this (in C major), and demonstrates the coincidence of the Sub.-Dominant with the 2d-class chords, in the tones f-a-c:

Third rank — Second-Dom. (7th) . . . . . d–F–A–C.
5th
Second rank — Dominant . . . . . g–b–d.
5th
☞ First rank — Tonic . . . . . C–E–G.
5th
(Third rank?)—Subdominant . . . . . F–A–C.

One incontestable and significant deduction for the student is, that *the Subdominant or Second-Dom. Chords bear the same relation to the Dominant harmonies, that the Dom. does to the Tonic.* Therefore the term "2d-Dominant" is peculiarly indicative, and preferable to "Subdominant."

172. The distinctive external characteristic of fundamental 2d-class chords is their Minor Third—, in C major the tone F instead of f-sharp:



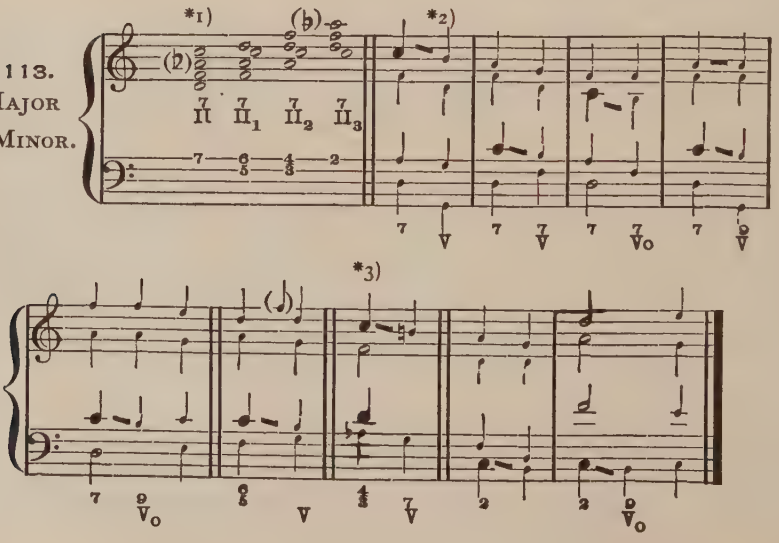
This interval distinguishes them from the Dominant or 1st-class chords, whose Major Third, being the Leading-tone, is their most significant feature.

173. The chord of the 7th upon the Second step and its Inversions, (to which this Lesson will be limited), resolve most naturally into the preceding chord-class, viz.,

***Into the Dominant Chords,* whereby the chord-seventh *descends diatonically,* as usual.**

Thus:

Ex. 113. C-Major and Minor.



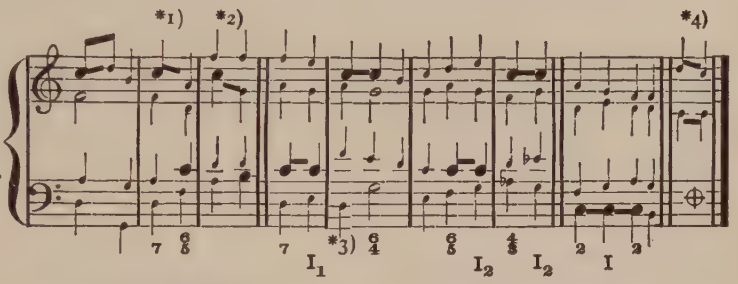
*1) *A-natural* in major, and *a-flat* in minor.—*2) These first five measures illustrate the Resolution of the $\overset{7}{\text{II}}$ into *each of the five Dom. chord-forms.*—*3) The 2d Inv. of the $\overset{7}{\text{II}}$ is much the best *in Minor*. Otherwise no distinction whatever is made between the two modes.

174. The $\overset{7}{\text{II}}$ and its Inversions, like the Dom.-Discords, are also entitled to the *Licences of Repetition* (comp. 147), and those involving the *stationary Seventh* (comp. 149).

For the progressions with *stationary Seventh* (into the *Tonic* chords I or VI) the 2d-class Discords all evince great preference.

For illustration:

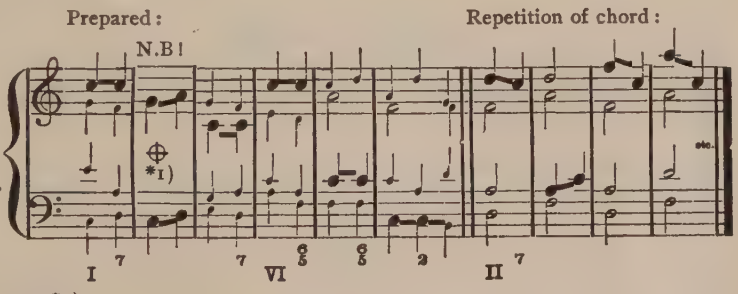
Ex. 114. C-Major and Minor.



*1) A curious example of parallel 5ths (perfect) in both pairs of upper and lower parts. They are *justified by chord Repetition!*—*2) It is not unusual for the 7th of the II7 to *leap downward* thus to the Dominant. Comp. 150, and consider that here it is the Tonic itself. *3) Comp. Ex. 84.—*4) Wrong, like Ex. 99, note *3), which see.

175. The *Introduction* of the dissonances in 2d-class chords demands closer attention and more restriction than in Dominant-chords. Review Ex. 92, and Ex. 95, and limit the Seventh of the $\overset{7}{\text{II}}$ to *strict* Introduction, as much as possible. Thus:

Ex. 115. C-Major and Minor.



*1) Ex. 83, note *2).

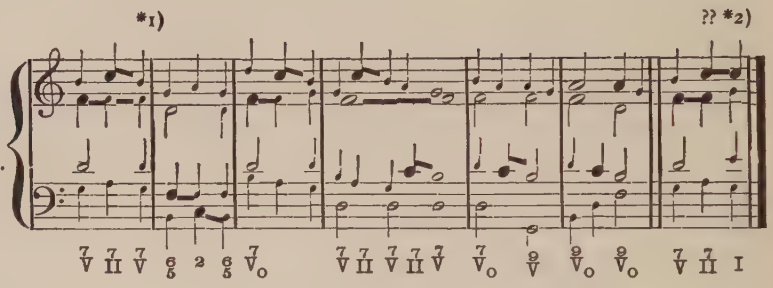
176. Especially unique is the Introduction of these chords after Dominant harmonies, thus: $\overset{7}{\text{V}}$–II, $\overset{7}{\text{V}}$–$\overset{7}{\text{II}}$, etc. This is merely another version of 149 (which review), and involves the following Rules:

a) **The 7th (or 9th) of the Dom. *remains stationary*.**

b) After the 2d-class chord, a Dom.-chord *must return*, in some form or other.

For illustration:

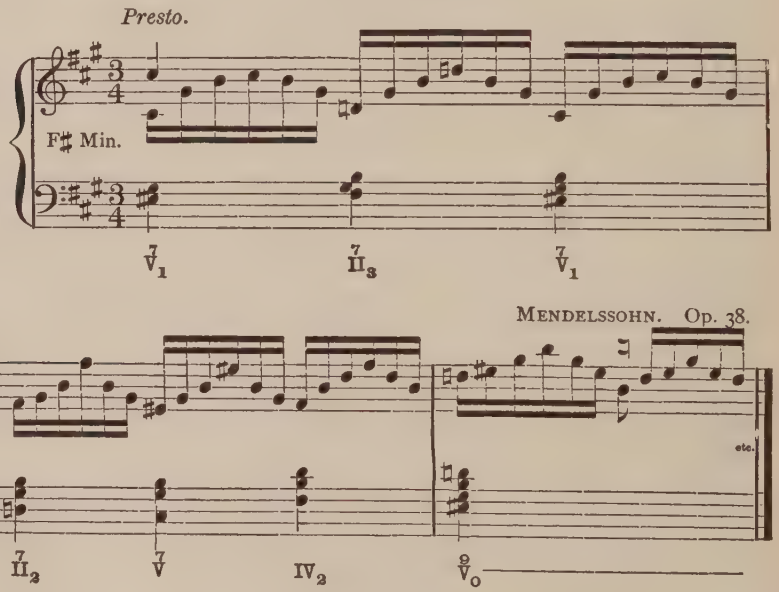
Ex. 116. C-Major.



*1) These first 2 measures are applicable to major *and minor*. But the others demand modification, as usual, wherever the 6th and 7th steps are melodically connected.—*2) Two stationary 7ths in succession are objectionable.

Further illustration:

Ex. 117.



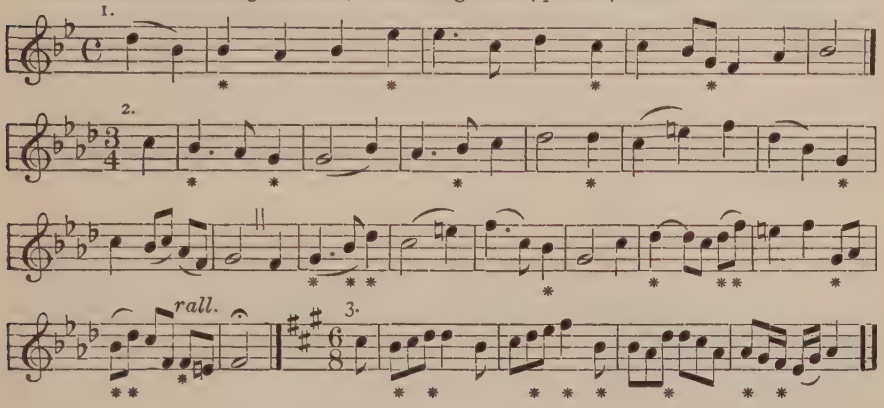
Lesson 34.

Write out the following 8 groups of chords in 8 different Keys (*major and minor alternately*), without regard to Rhythm; the 5th of the $^{7}_{II}$ *itself* may be omitted; all Inversions not specified are optional · *be careful to resolve all the Sevenths!*

I–$^{7}_{II}$–$^{7}_{V}$–VI; VI–$^{7}_{II_1}$–$^{7}_{V_3}$–I_1; I_1–$^{7}_{II_1}$–I_2–V; I–$^{7}_{II_2}$–$^{9}_{V_0}$–I_1; I–$^{7}_{II_1}$–VI_2–$^{7}_{II}$–$^{7}_{V_0}$–I; I–IV_2–$^{7}_{II_3}$–V_1–I; I–$^{7}_{V_2}$–II–$^{7}_{V_2}$–$^{7}_{II_3}$–$^{9}_{V_0}$–$^{7}_{V_3}$–I_1; I–$^{7}_{V}$–$^{7}_{II_2}$–$^{7}_{V}$–$^{7}_{V_3}$–$^{7}_{II_1}$–$^{9}_{V_0}$–I_1–$^{7}_{II}$–I_1.

Lesson 35.

Re-harmonize Lesson 11, Nos. 3, 5; 13, No. 3; 18, No. 4; 21, No. 2; 27, No. 4; 28, No. 1.
Harmonize the following melodies, introducing some (*optional*) form of the $\overset{7}{\text{II}}$ at each *:

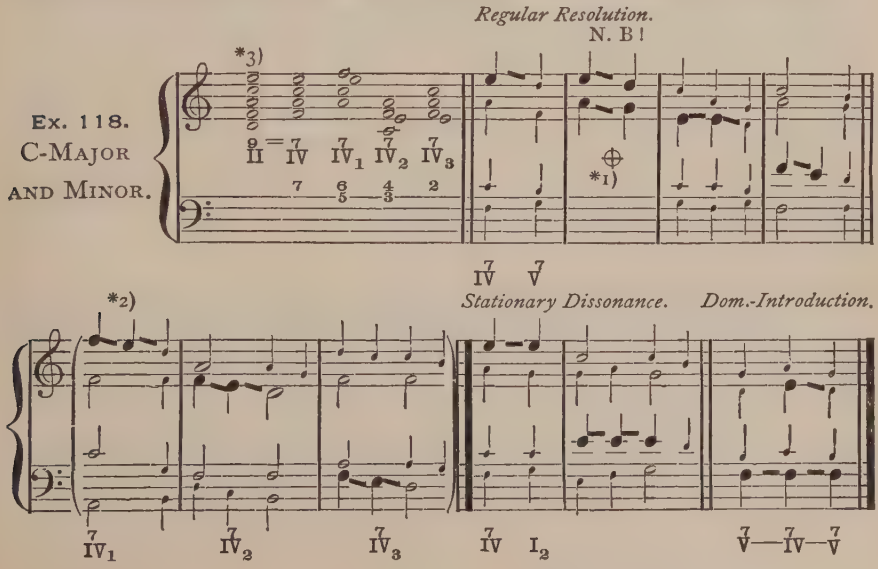


CHAPTER XXX.

Other 2d-Class Discords. Discords of the 3d and 4th Class.

177. The chord of the Ninth upon the 2d Scale-step is extremely rare in its *Complete* form, but available and important without its Root, as CHORD OF THE SEVENTH ON THE 4TH STEP ($\overset{7}{\text{IV}}$). Its treatment corresponds in every essential particular to that of the $\overset{7}{\text{II}}$, excepting that it is more rigorous. *Licences of Introduction or Resolution are almost entirely precluded.* Review 173, 174 and 176, with reference to the following illustrations:

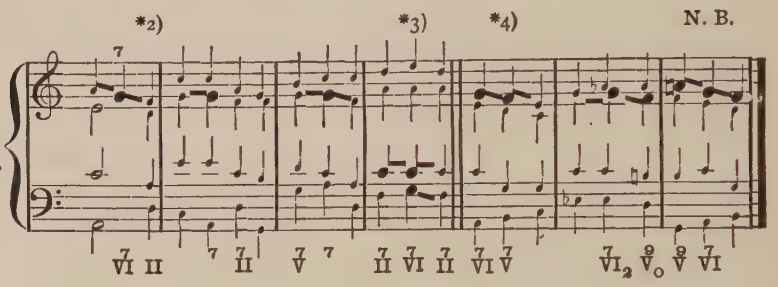
Ex. 118. C-MAJOR AND MINOR.



*1) The $\overset{7}{\text{IV}}$ cannot resolve into the *Triad* V without danger of these parallel 5ths. Therefore the chord usually resolves into the Dom.-*Seventh or Ninth*.—*2) *The Inversions of the* $\overset{7}{\text{IV}}$ *are seldom employed*.—*3) In *minor*, *e* and *a* become e-flat and a-flat.

178. Of the 3D AND 4TH-CLASS DISCORDS (see Ex. 90), the most important is the chord of the Seventh on the 6th step ($\overset{7}{\text{VI}}$). Its connections are as follows:

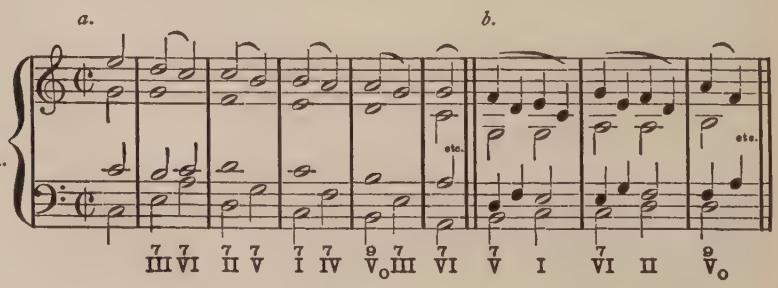
Ex. 119. C-MAJOR.

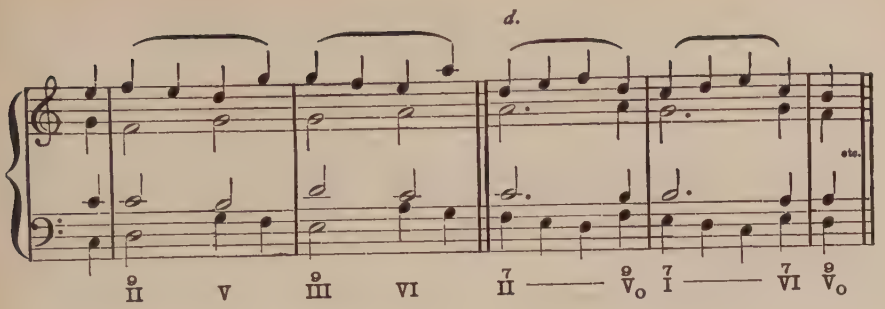


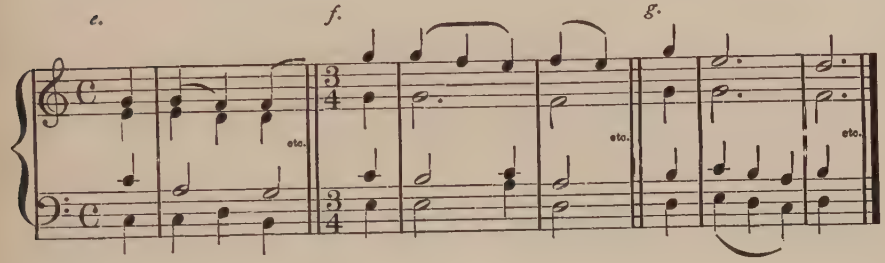
*1) Principally in Major; but also in Minor, where the melodic connection of the 6th and 7th steps can be avoided.—*2) 3d-class chords resolve "regularly" into those of the 2d-class (II, $\overset{7}{\text{II}}$, etc).—*3) Analogous to 176.—*4) An "irregular" (but very common) resolution, into *Dom.*-chords.

179. All the rest of these remote Discords are least objectionable, because most comprehensible, when used in SEQUENCE-RELATIONS with better chords. Review *carefully* 120, 121 and 122, with their examples. The possibilities here are far more numerous than in the former lessons (among Concords), because the sum of chord-forms and Inversions is much greater. (But observe 122 f). All questions of quality or admissibility must be left exclusively *to the ear*. See 132. A few random examples will suffice:

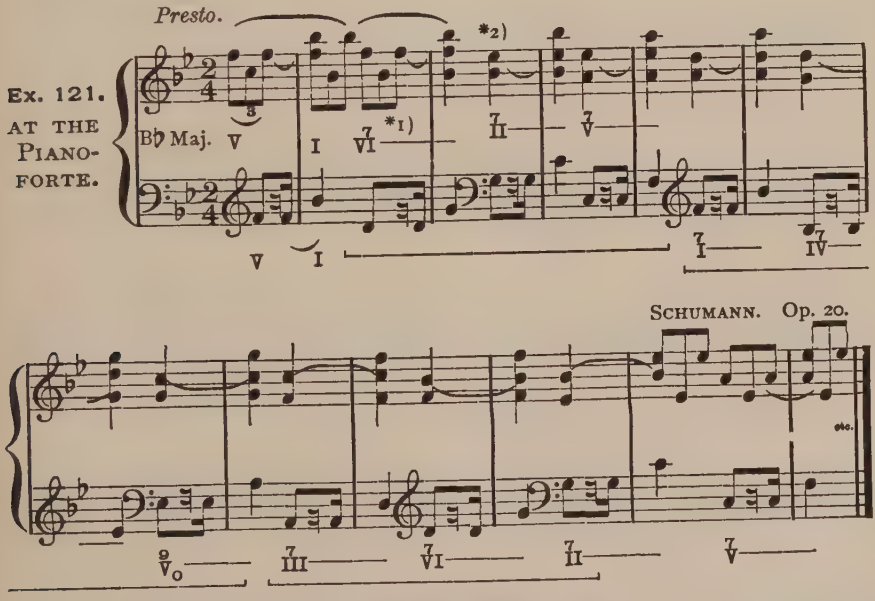
Ex. 120. C-MAJOR.







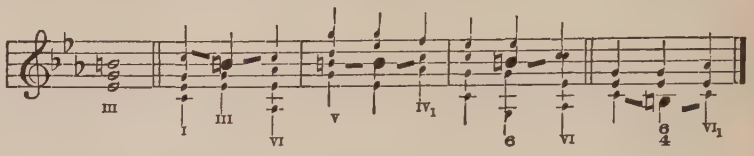
Further illustration:



*1) When the tempo is so rapid, successive beats, of similar harmonic import, *blend*; therefore these chords are defined by grouping *both beats* (represented by each Bass-figure) together.—*2) The figure in ♪-notes continues throughout, as in the first and last measures. *The pupil is to play it in its correct form!*

180. One extraordinary chord of the 4th Discord-class claims special mention, viz., THE TRIAD UPON THE 3D STEP, in the MINOR MODE. It is an *Augmented* Triad (102 b), and is treated thus:

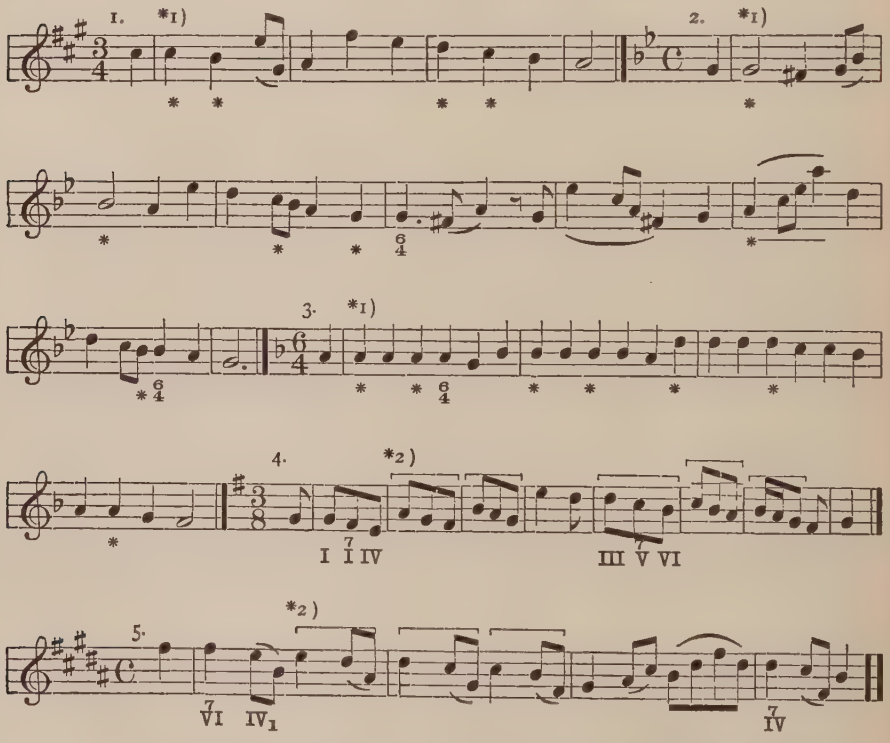
Ex. 122.
C-MINOR.



(Mat. Mus. Comp. §§ 212—219; 220; 221).

Lesson 36.

A. Continue the Sequences in Ex. 120 a, b, d, e, f, g, a few measures farther, in exact repercussion.—**B.** Harmonize the following Melodies:



*1) At each * a 2d-class Discord ($\frac{7}{II}$ or $\frac{7}{IV}$).—*2) The brackets indicate Sequences. Also re-harmonize Lesson 22, No. 2.

DIVISION THREE.

KEY-RELATIONS AND ASSOCIATIONS (MODULATION).

CHAPTER XXXI.

The System of Keys and Modes.

(Mat. Mus. Comp. §§ 262—269).

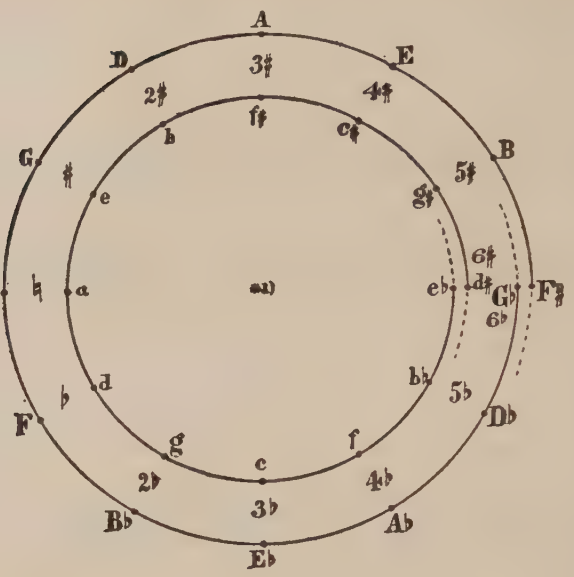
181. The harmonic principle according to which the tones of a Key or Scale are singled out from the innumerable range of musical sounds was demonstrated in 9 and 10, which review. The number of tones thus associated to form a harmonious group or family was confined to *seven*, in order to exclude any contradictory element. But when the tones are singled out (conformably with the same principle of tone-relation) as independent *Key-notes*, there is theoretically (and actually) no limit to the number, because a progressive series of *absolutely perfect 5ths* is infinite, never returning to corroborate the initial tone. PRACTICALLY, however, a limit is assumed at that point in the series where the assonance with the first tone is so *nearly complete*, that the necessary adjustment is effected almost or quite imperceptibly, viz., at the 12TH TONE. Thus (beginning, for example, with the tone G-flat, and *ascending* in perfect 5ths):

G-flat–D-flat–A-flat–E-flat–B-flat–F-natural–C–G–D–A–E–B–F-sharp
1 2 3 4 5 6 7 8 9 10 11 12

The last (12th) tone impresses the ear so nearly like the first one, that the ACTUAL difference in pitch can easily be ignored, in favor of a complete or *closed* circuit of tones.

182. The above tones constitute the Keynotes or Tonics of the 12 Major Keys (or 13, if both extremes are included) of our modern Tone-system. The following circular arrangement displays their relative locations, their Signatures, and (upon the concentric inner circle) their *Relative Minor* Modes, in a clear and accurate manner. The MAJOR Keys are indicated by CAPITALS, the MINOR Keys by SMALL letters:

Ex. 123.



*1) The distance from point to point is a perfect 5th, or *Harmonic Degree*, along each line—Major and Minor. The difference between the size of the upper and lower arc serves to illustrate the *actual* difference between G-flat and F-sharp (E-flat and D-sharp), but is intentionally exaggerated.

183.

The degree of *Key*-relationship being determined, like all other tone-relations, by the interval of the perfect 5th (see 8 and 30), it is obvious that the degree of relation of one Key to any other is simply a question of *distance* along the lines of the above chart.

For example, the Keys of G and F are *nearest* related to C, whereas D is two degrees, E-flat three degrees, F-sharp six degrees removed from C. This corroborates the natural assumption that those Keys must be most closely related which have the least number of differentiating tones: The comparison of the C and G scales exhibits *only one single* differentiating tone (F-sharp); all the rest of the tones are common to both of these Keys. This last assumption is the hypothesis upon which the location of the *Minor* modes depends, in the above chart, and the determination of the RELATIVE (review 89) MINOR Mode in general. Thus, the Key of *a* minor, being the "Aeolian" of C major, and agreeing in one of its melodic forms *exactly* with the scale of C, is *placed opposite C major as its most intimate attendant.* See Ex. 58, note *1).

184. Each Key is seen to be surrounded or attended by FIVE proximate Keys, called its NEXT-RELATED or ATTENDANT KEYS. For example: From *C Major*, (natural scale),

1. The Relative Key, *a Minor* (natural scale);

2. The Dominant Key, *G Major* (1 sharp scale);
3. The Relative of the Dominant Key, *e Minor* (1 sharp scale);
4. The Subdominant Key, *F Major* (1 flat scale);
5. The Relative of the Subdom. Key, *d Minor* (1 flat scale).

They are most readily determined BY SIGNATURE, because the comparison of Signatures instantly reveals the degree of similarity, or difference, between any two Keys. The Next-related Keys, consequently, are indicated by next-related Signatures, i. e. such as do not differ by *more* than one accidental.

All the rest of the 24 major and minor Keys are more or less *foreign* to the Key of C. The so-called REMOTELY-RELATED Keys will be defined later.

Modulation.

(Mat. Mus. Comp. §§ 270—277).

185. Modulation is the act of *progressing from one Key or Mode into another*, or of *exchanging one Key for another*. The exchange is effected by the substitution or transformation of one or more of the members of the original group into agreement with the cluster of tone-relations constituting the desired Key.

186. The PROCESS OF MODULATION, while subject in general to the foregoing rules of part-writing, is furthermore regulated by the following special rules:

RULE I. Modulations are limited ordinarily ***to the five next-related Keys.***

A transition which extends *beyond the* NEXT SIGNATURE is called "Extraneous," and is always subject to special conditions.

RULE II. The desired Key is most easily and regularly reached ***through one of its Dominant (1st-class) chords*** **(V, $\overset{7}{V}$, $\overset{7}{V}_o$, $\overset{9}{V}$ or $\overset{9}{V}_o$** ***in any form*****).**

RULE III. The Key may also be attacked at any SECOND-CLASS chord (II, $\overset{7}{II}$, IV, $\overset{7}{IV}$) in any form. But of the remaining class, i. e. the *Tonic* chords, only one single representative is valid as legitimate modulatory chord, namely, the TONIC SIX-FOUR CHORD, on an ACCENTED beat.

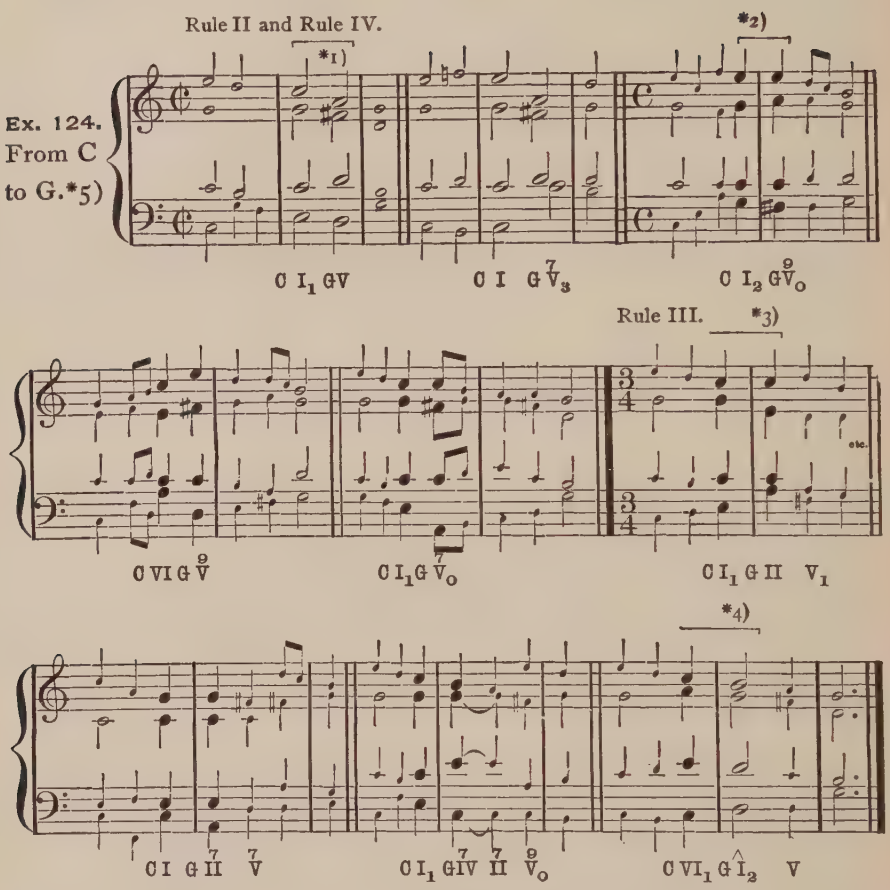
RULE IV. It is always best to ***close the original Key upon one of its Tonic chords*** **(I or VI in the usual forms).**

It is also possible to abandon a Key at some other, non-Tonic, chord, but often awkward, and always conditional. Hence the following fundamental modulatory formula (which will be the pupil's sole guide for a while):

Abandon the first Key at one of its Tonic chords, and enter the desired Key through its Dominant class—, more rarely through its Second class, or through the accented I_2.

Illustration of these Rules:

Ex. 124. From C to G.*5)

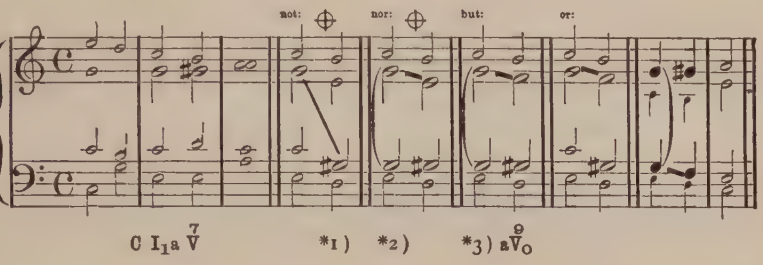


*1) The modulatory transition is effected by the connection of the two chords under the ⌐——¬; the first one is the I1 of the original Key (C), which brings the latter to a sufficiently marked *close*, leaving no impediment to the "change of Key," or "modulatory digression"; the second of the two chords ushers in the desired Key (G), through the Leading-tone agency of its Dominant chord.—*2) It is evident that the *rhythmical location* of the modulatory chords (on heavy or light beats) is of comparatively little moment.—*3) The new Key (G) is entered through one of its Second-class chords (the II); *this resolves into the Dominant*, and therefore merely serves to protract the modulatory process.—*4) G is entered through its *accented Tonic-6-4-chord*.—*5) *These examples are also valid for the Modulation from C* MINOR *into G* MINOR, with the usual reservation. See 90.

187. The last chord of one key must be regarded and treated as the *first factor of the next key*. If it belongs entirely to the new key, the rule will affect *all of the parts*. But if not,— if any tone of the last chord is foreign to the coming key, that tone must be treated *chromatically* (i. e. be inflected by an Accidental). See 223.

RULE V. Chromatic inflections are most likely to be made in *one and the same voice*, to avoid the so-called "Cross relation," which arises from placing the two tones of a chromatic inflection in *different voices*. The "Cross relation" is, however, *never wrong if the first of the two tones does not progress* WITH A SKIP. For example:

Ex. 125.
C to a.
*4)



*1) The chromatic inflection (g–g-sharp) is divided between two different voices.—*2) The Alto note g *skips* to e, while its duplicate in Tenor is being chromatically inflected.—*3) This measure and the next are correct, because the duplicate of g progresses *diatonically* to f in one of the parts.—*4) That is, *C major* to *a minor*.

Lesson 37.

A. Name the 5 next-related keys of every major and minor key, mentally.

B. Write out the following chord-progressions, in ordinary 4-part open harmony, as usual, each in several different ways,—all chord-forms optional:

G I–C V7 *1) || e I–a V7 *1) || F I–d V || d I–F V7o || A I–E V9 || f♯ I–c♯ V9o | A♭ I–c II7–V7 || f I–E♭ II7–V7 || D I–e V9o || E I–f♯ V || g♯ I–E V7 || b♭ I–G♭ V7o || c I–B♭ I>2–V || b I–f♯ I>2–V7 ||

*2) Resolve the last chord of each group into its I.—

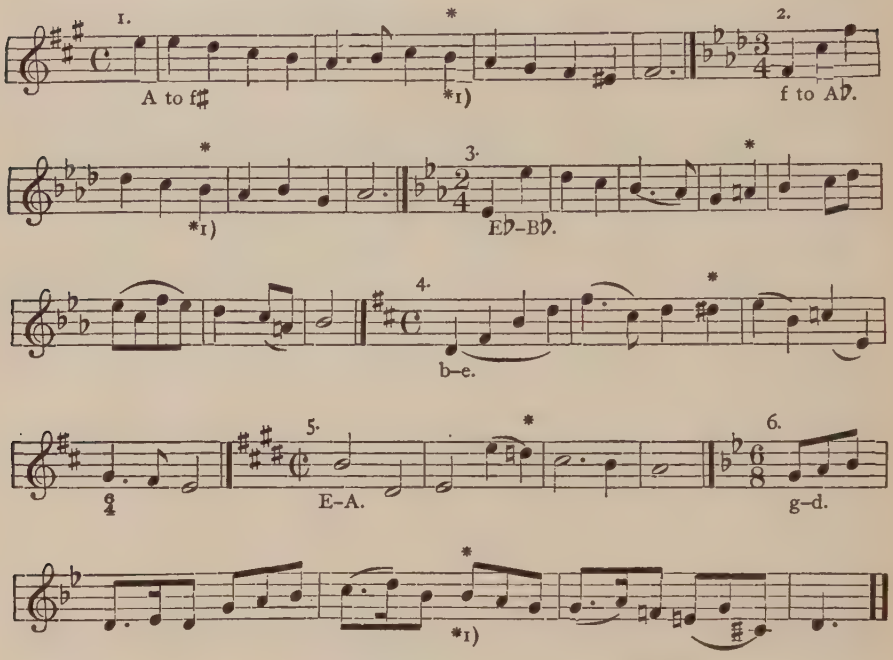
CHAPTER XXXII.

Next-Related Modulations. Continued.

188. A modulation is distinguished as COMPLETE, when the prospective Key becomes the *final aim* of the digression, and is confirmed as such by a complete Perfect Cadence in the new Scale. Such transitions are naturally made upon a somewhat broader plan than "transient" modulations (189), and must absorb at least a whole Phrase or Period.

Lesson 38.

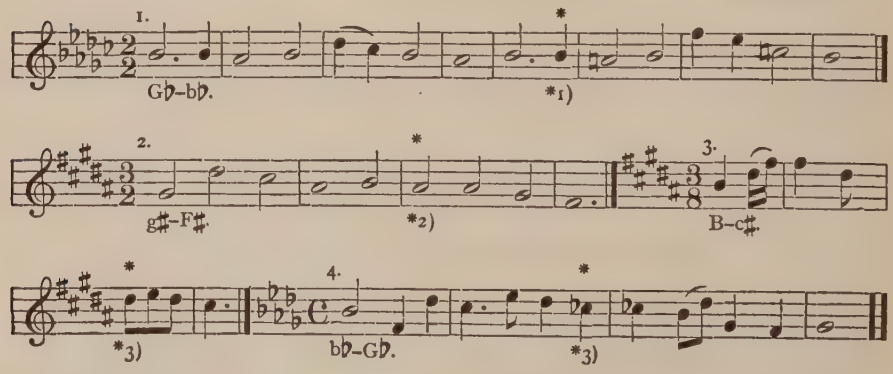
Harmonize the following Melodies, introducing the modulatory transition at the *:



*1) Either a Dom. chord, or a 2d-class chord (of new Key), at option.

Lesson 39.

Harmonize the following Melodies, as in Lesson 38; each in at least two different ways:



*1) 2d-class chord of new Key.—*2) These two *a's* may be either I_2–$\overset{7}{IV}$ or $\overset{7}{IV}$–I_2 of the new Key.—*3) Dominant or 2d-class of new Key, at option.

CHAPTER XXXIII.

Next-Related Modulations. Continued.

189. A Modulation is distinguished as TRANSIENT, when the new Key occurs *in the course* of a Phrase or Period, and is followed either by the original Key again, or by some other next-related Key. Transient modulations are frequently very brief, only extending through a few beats, sometimes only including two chords, but *not less than two!* Because:

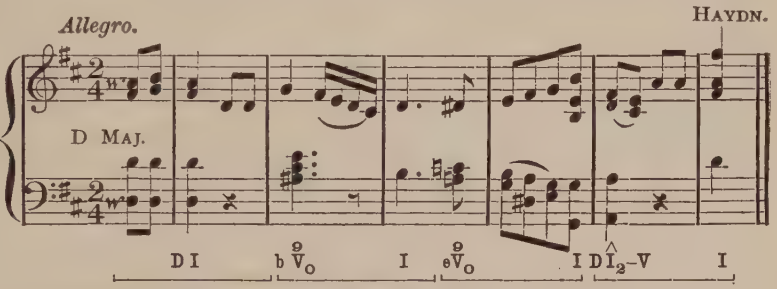
190.

A modulation is never consummated until the new Dominant chord has been *resolved into (and confirmed by) its Tonic harmony;* no Key can be *unmistakably* represented by *less than these two chords,* V–I (or V–VI), in some form or other.

(Comp. Ex. 128, notes *2) and *3); Ex. 147, note *3); and Ex. 150).

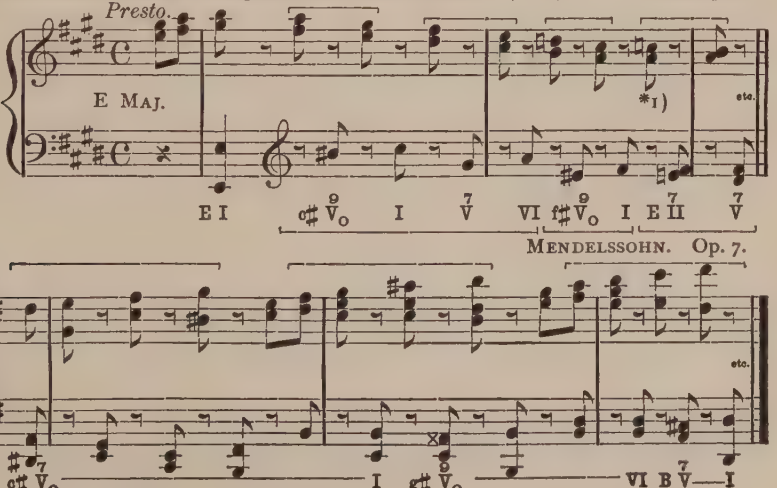
The modulatory process remains the same as in Complete transitions. For illustration:

Ex. 126.



191. Transient modulations very often assume the form of *Sequences*, whereby, as usual, certain irregularities are tolerated (121). For example:

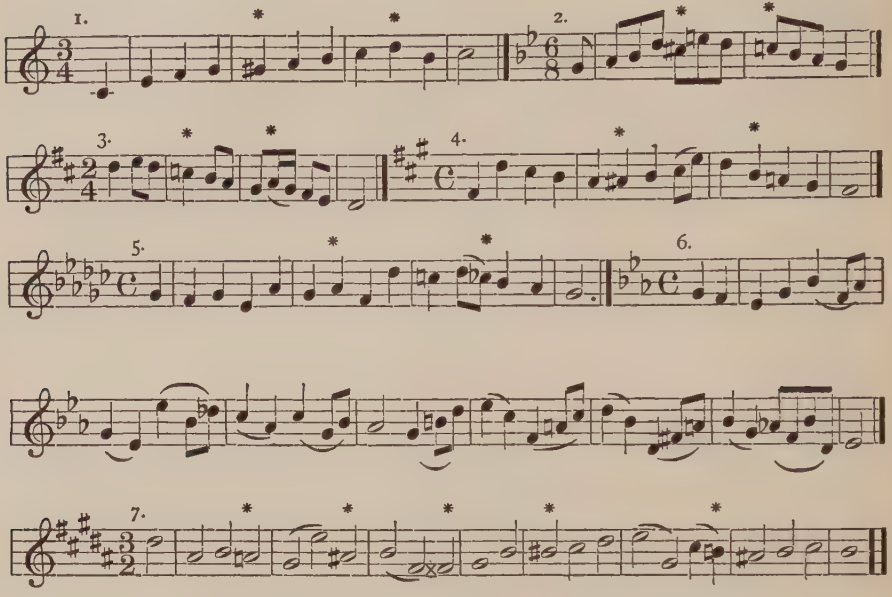
Ex. 127.



*1) The meaning of c-natural is explained in 194, No. 1.

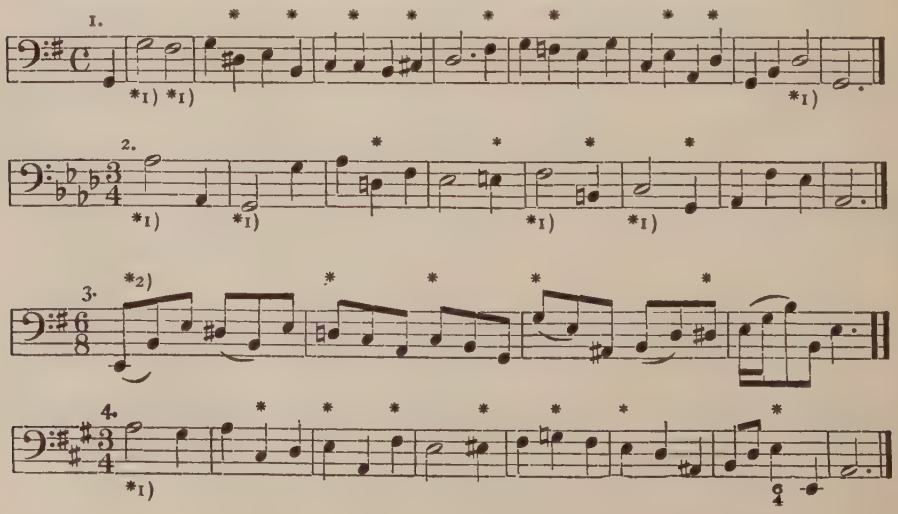
Lesson 40.

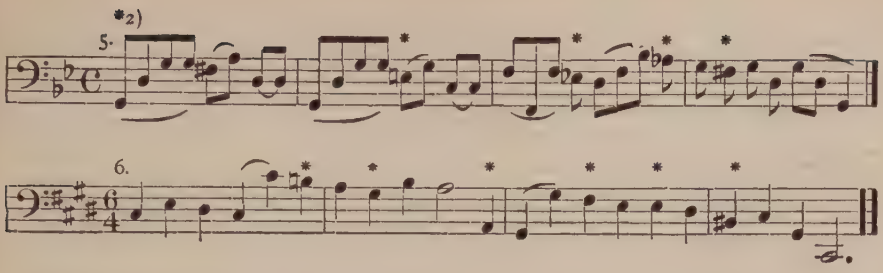
Harmonize the following Melodies, introducing Transient Modulations as indicated (at each *):



Lesson 41.

Harmonize the following unfigured Basses, with Transient Modulations at each *:





*1) Two Melody-notes.—*2) One Melody-note to each slur. Close harmony.

CHAPTER XXXIV.

Altered Chords in Major.

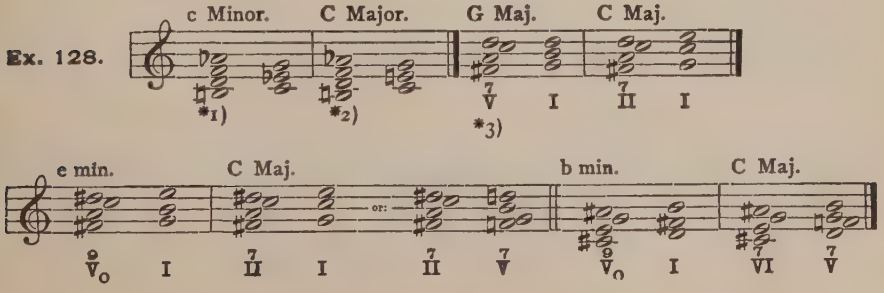
(Mat. Mus. Comp. §§ 241—248).

192. Altered chords are such as contain one or more tones *foreign to the Scale in which they appear*. They represent the most fugitive grade of Key-association, or, more strictly, are only *incipient* modulations, not consummated by regular resolution *into the Key to which they legitimately belong* according to their *notation*. From which it is to be inferred that an Altered chord is distinguished from the Legitimate chords *by the manner in which it* PROGRESSES. Viz.:

193.

An Altered chord is always followed by some chord which unmistakably characterizes and *confirms the prevailing Key*, i. e. *usually by the I*, sometimes by a Dom.-Discord; rarely by any other chord.

For illustration:



*1) This is the legitimate Incompl. Dom.-Ninth (ch. of the Dim. Seventh) of C Minor (see 165, and Ex. 108); and is confirmed as C minor chord by its resolution into the I of C minor (c–E-FLAT–g). 2) Here the very same chord progresses into the I of C MAJOR (c–E-NATURAL–g) thus identifying itself *as a C major chord*, with the *casually altered a-flat*, (6th step lowered).—*3) This chord appears to be the Dom.-seventh of G major and is confirmed as such, by resolving into the G-major I; the f-sharp is indispensable. In the next measure its appearance (notation) is *not* confirmed in this manner, but, progressing into the I of C major, it proves to have been a *C-major* chord, *Altered;* the f-sharp (4th step raised) in this case is arbitrary and optional.—The other examples are demonstrated similarly. COMPARE 190, and observe that

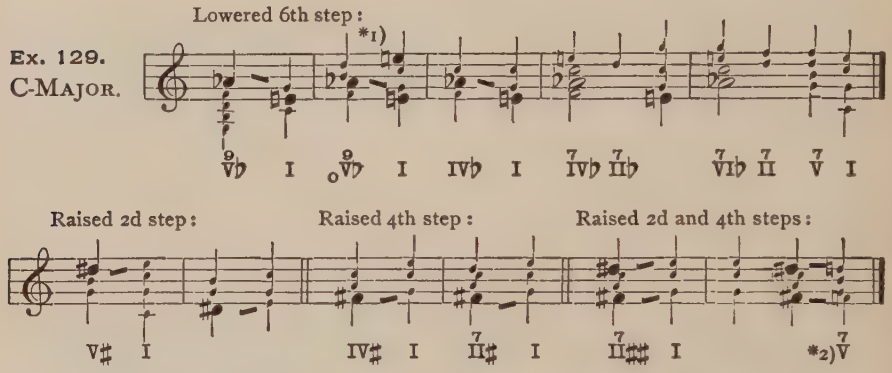
the identity of a chord depends upon what it *does* (i. e. upon its *progression*).

194. The most frequent alterations IN MAJOR are:

1. The LOWERED 6TH SCALE-STEP, in ALL chords which contain that step;
2. The RAISED 2D STEP, in DOMINANT Triads;
3. The RAISED 4TH STEP, in all 2D-CLASS chords (Ex. 112);
4. The RAISED 2D AND 4TH STEPS TOGETHER, in the $\overset{7}{\text{II}}$.

For illustration:

Ex. 129. C-MAJOR.



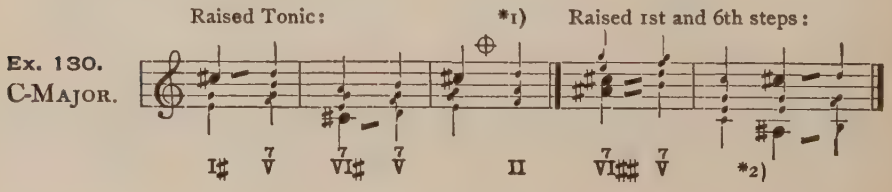
*1) The chord of the Dim.-7th can thus be used *in Major* as well as in Minor! See 165, last clause.—*2) An exceptional, but not uncommon, Resolution.

195. Other alterations are possible, but *far less usual.* Namely:

1. The *raised 1st step* (in the I or $\overset{7}{\text{VI}}$, *always* resolving into the *Dom.-7th*).
2. The *raised 1st and 6th steps* together (only in the VI^7, followed by the V^7).

For example:

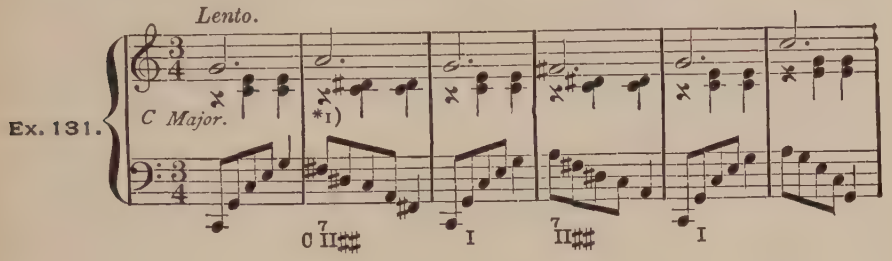
Ex. 130. C-MAJOR.

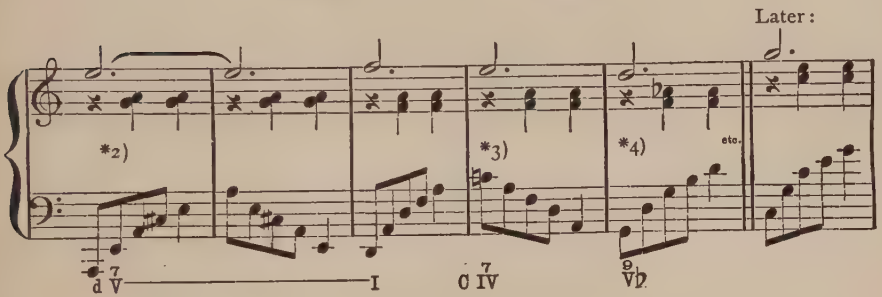


*1) *Not* thus, into the II, as this would corroborate the preceding chord as *legitimate*, in *D minor*.—*2) In connection with *Altered chords*, such unusual interval-progressions as c–a-sharp, etc. are permissible.

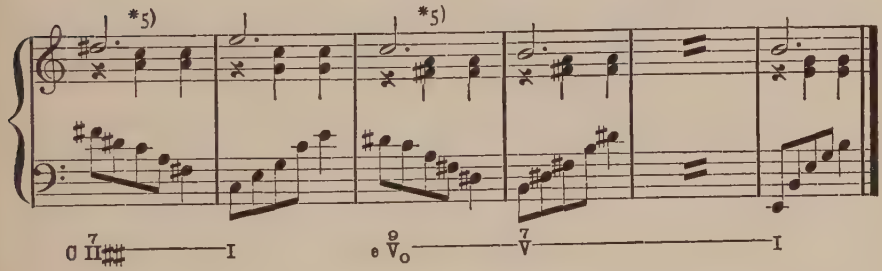
Additional illustrations:

Ex. 131.

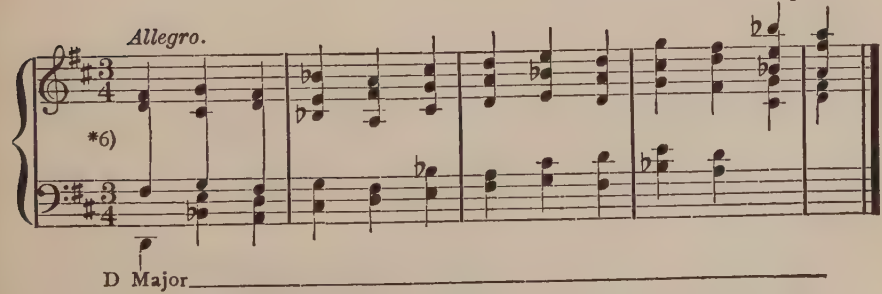




SCHUMANN. Op. 2.



SCHUMANN. Op. 21, 4.

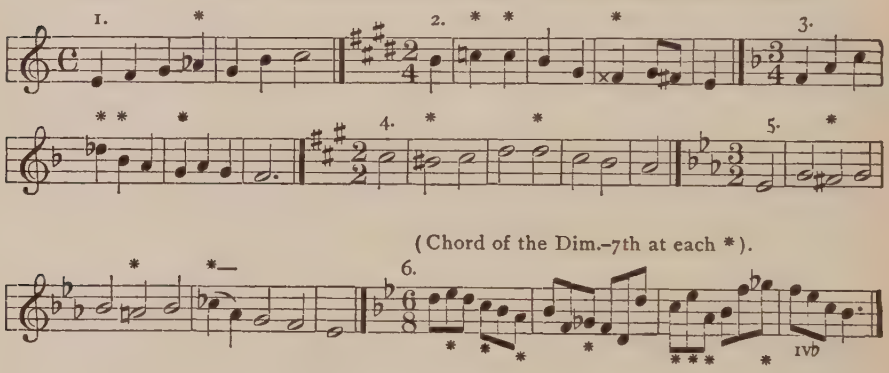


*1) The altered II7 of C major (raised 2d and 4th steps); repeated two measures later.—*2) Here a transient modulation is made into d minor;—*3) and here C major is re-entered, through its IV7.—*4) The lowered 6th step of C major.—*5) *5) The comparison of these two measures illustrates the distinction between an Altered and a legitimate chord. At first, the d-sharp–f-sharp–a–c is an altered II7 of C, because it resolves into the I of that Key; two measures later, *the same chord* proves to be the legitimate Dim.-7th of e minor, because it progresses into the V7 (and then into the I) of the latter.—*6) The Dim.-7th in the *major* mode. Ex. 129, note *1). See also: CHOPIN, Mazurka 34, measures 53–68 (raised 4th step).

196. The treatment of Altered chords is very simple, not differing materially from that of the corresponding unaltered chords. *Raised notes resolve diatonically upward*, (with rare exceptions, as in Ex. 129, note *2): *lowered notes always downward.* Altered tones should not be doubled. *Observe smooth voice-progression. Avoid the Cross-relation.* (187).

Lesson 42.

Harmonize the following Melodies, *each in two ways*, with an Altered chord at each *:



TO THIS LESSON, ADD APPENDIX C, No. 8.

CHAPTER XXXV.

Altered Chords in Minor.

(Mat. Mus. Comp. §§ 249—255).

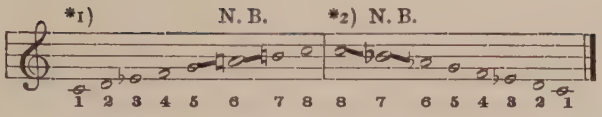
197. Review, carefully, 85, 86, 87 and 88. The Alterations in Minor are defined on the basis of the HARMONIC MINOR SCALE. Their purpose in Harmony consists almost exclusively in obviating the awkward interval-progression between the 6th and 7th steps of the Harmonic scale, by substituting a melodious succession which gives rise to the MELODIC minor scale.

198. For this purpose,

The *6th step is raised* in the *ascending scale*, and the *7th step is lowered* in the *descending scale*.

Thus:

Ex. 132. C MINOR, MELODIC.



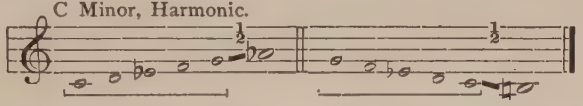
COMPARE Ex. 56.

*1) The *ascending* scale thus re-approaches the ORIGINAL MAJOR form (C major).—*2) The *descending* scale corresponds to the historic "Aeolian" mode, and exactly resembles the RELATIVE Major Key, from which the minor Signature is derived (see Ex. 58, note *1).

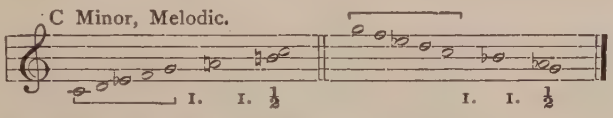
199. The external proportions of these various Minor scales may be systematized without confusion as follows:

1. The first 5 tones, from Tonic to Dominant, are *the same in all the forms of minor*, and contain the *lowered* (or *minor*) *3d step;* (in c-minor, c–d–e-flat–f–g).

2. In the Harmonic scale, the Dominant and Tonic are each followed by a half-step, in *passing beyond* this central group of 5 tones just described, in either direction; thus:



3. In the Melodic scales, the *upper* series of tones, between Dominant and upper Tonic, consists of "whole-step, whole-step, half-step" in *both* directions; thus:

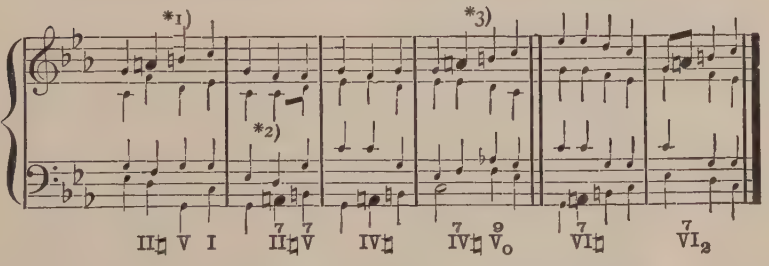


200. From this the important principle is deduced, that

The *3d step* is the only characteristic and distinctive tone, between a Major scale and its derivative minor, being Major in Major, and Minor in Minor, and subject to *no alteration*.

201. The *raised 6th step* is applied and treated as follows:

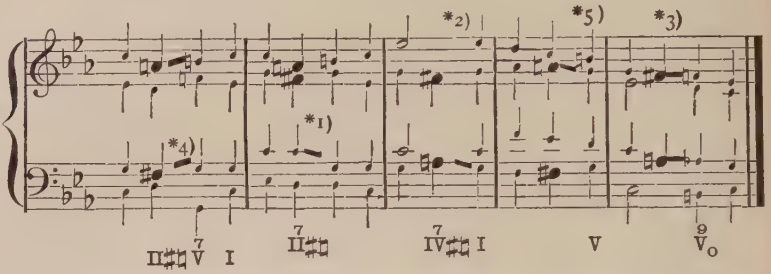
Ex. 133. C-MINOR.



*1) The progression of these chords is defined by the resolution of their Altered step,—not by 193! Here, *Dominant* chords *must* follow.—*2) The Resolution of this 7th (c in Alto) corresponds to Ex. 100.—*3) A♮ followed by a♭ (Tenor) produces the Cross-relation. See 187. The *diatonic progression* of the *first tone* invariably removes this error.

202. The *raised 4th step* often accompanies the raised 6th step, in *2d-class* chords. In this case *only the 4th step* requires the ascending resolution; the 6th step may rise or fall. For illustration:

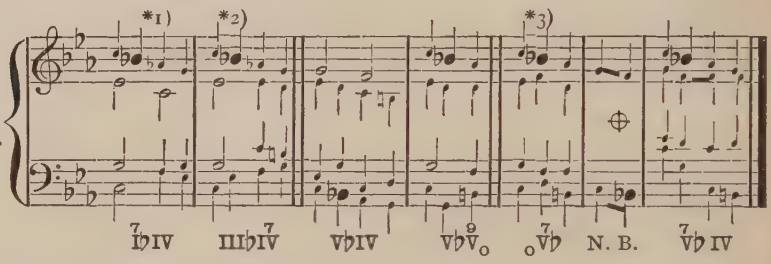
Ex. 134.
C-Minor.



*1) See Ex. 114, note *2).—*2) Resolution into the I; stationary dissonances.—*3) Analogous with Ex. 129, note *2); rare.—*4) Comp. Ex. 133, note *3).—*5) The resolution into the *Concord* V resembles a modulation. The Dom.-*discords*, or the I, are more genuine (193).

203. The *lowered 7th step* is applied and treated thus:

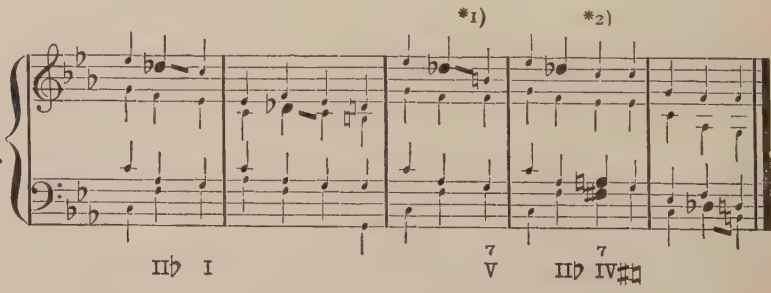
Ex. 135.
C-Minor.



*1) Comp. Ex. 133, note *1).—*2) Compare 101, and Ex. 67.—*3) The Lowered 7th step is rarely employed in *Dom.*-chords; especially not in the *Discords* of the Dominant.

204. Aside from these Alterations, which are identified with the Melodic minor mode, there is one other very common alteration, namely, the *lowered 2d step*, which occurs in the *1st Inversion of the II* (more rarely in the II itself). For illustration:

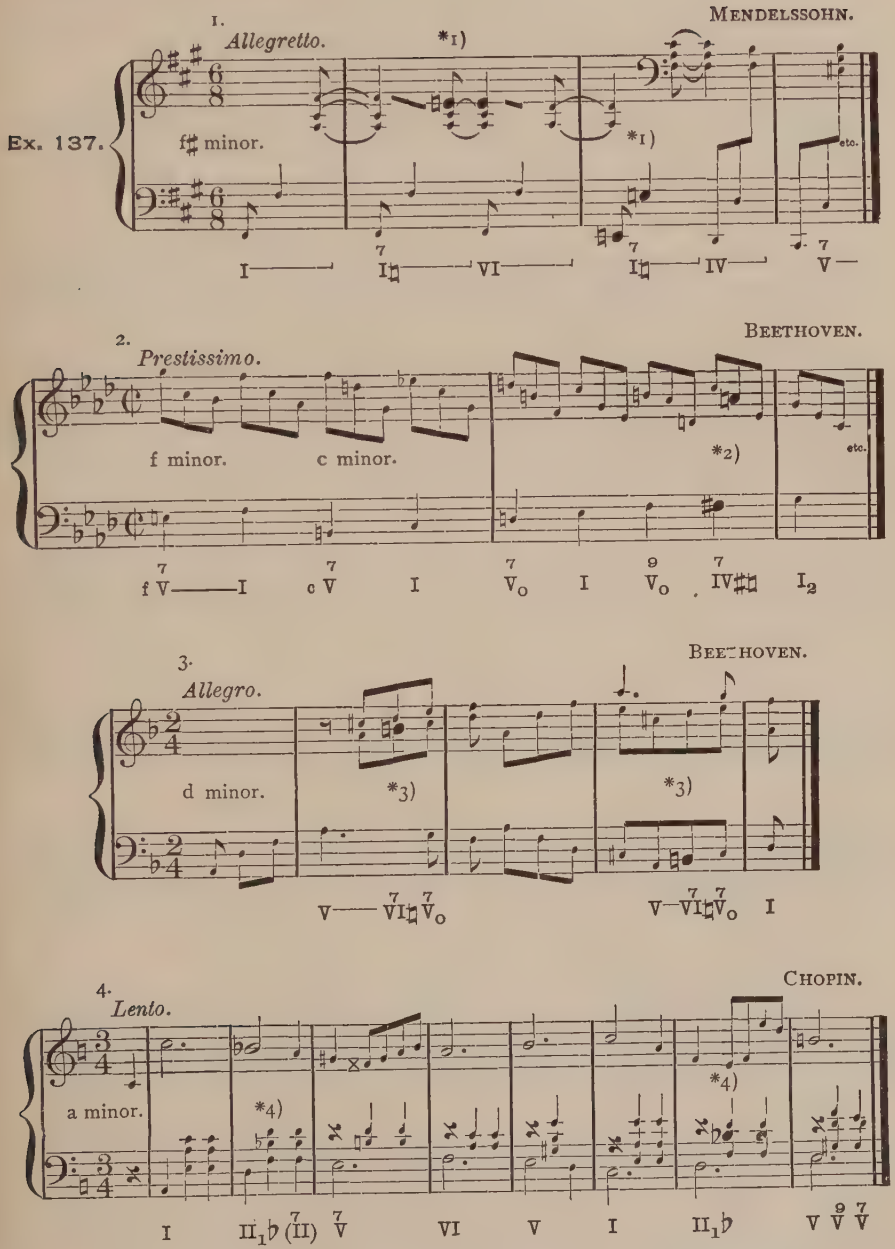
Ex. 136.
C-Minor.



*1) See Ex. 130, note *2).—*2) Two different Altered chords in succession.

Additional illustrations:

Ex. 137.

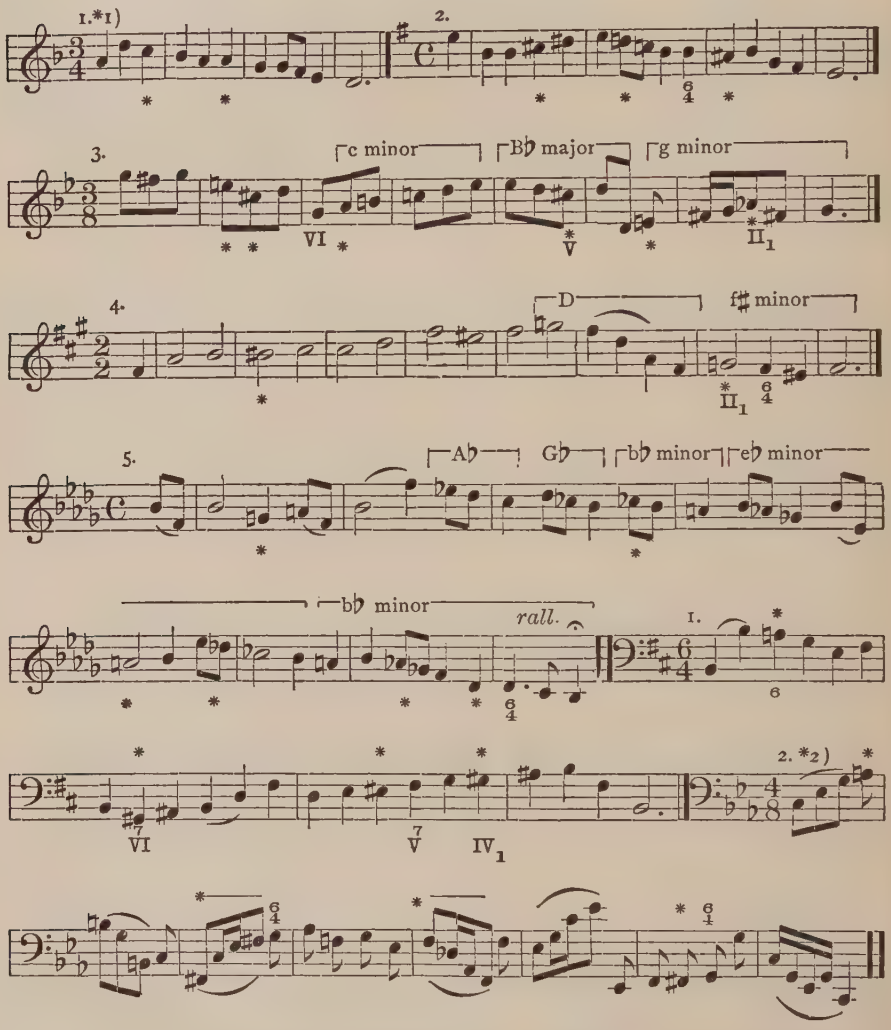


*1) Lowered 7th step.—*2) Raised 6th and 4th steps.—*3) Raised 6th step.—*4) Lowered 2d step.

Lesson 43.

Harmonize the Melodies of APPENDIX C, No. 9.

Harmonize the following Minor Melodies and Basses, introducing *altered steps* at each * (in some cases definite, in others optional); and modulating as indicated:



*1) This Melody (and the next one also) may be harmonized in two or three different ways.—*2) Close Harmony; one Melody-note to each slur, strictly.

CHAPTER XXXVI.

Mixed Chords in Major and Minor.

(Mat. Mus. Comp. §§ 256—261).

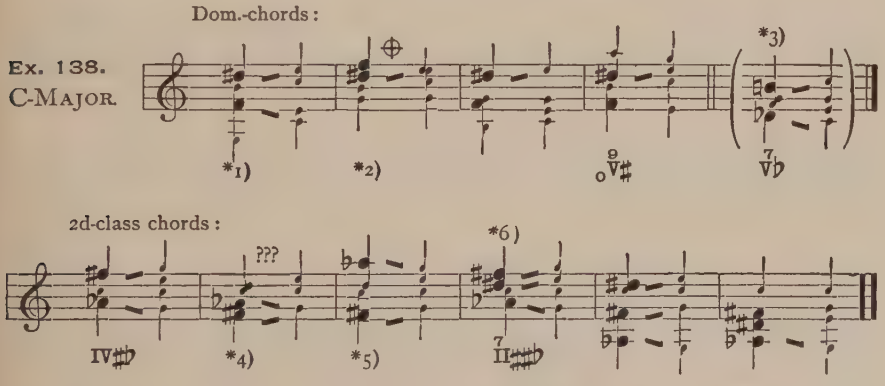
205. Mixed chords, usually called CHORDS OF THE AUGMENTED SIXTH (because they all contain that peculiar interval), have an *illegitimate* or *deformed* shape, resulting from the more or less unnatural association of steps which are peculiar to different scales. They are very effective, frequent, and easy to manipulate. Besides the rules in 193 and 196 (which review) it must be observed, that

The interval of an augm. 6th is rarely *inverted;* and Mixed chords usually resolve into the *Tonic* chords.

206. Mixed chords in MAJOR are obtained, firstly, by *raising the 2d step* of the scale in *Dominant Discords;* secondly, by *lowering the 6th step* in conjunction with the *raised 4th* (or *raised 4th and 2d*) steps, in *Second-class* chords.

Thirdly, and very rarely, by *lowering* the 2d step in the Dominant Seventh.

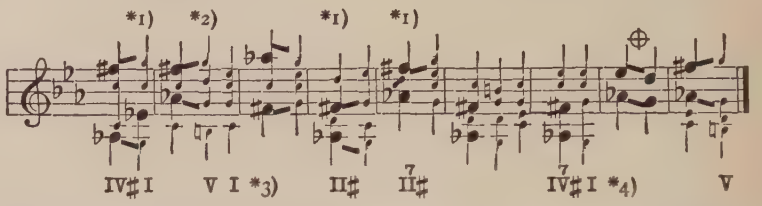
Ex. 138.
C-MAJOR.



*1) The augm. 6th arises from the association of d-sharp with f-natural.—*2) Here the augm. 6th is inverted (to a dim. 3d, d-sharp—f-natural), which sounds ambiguous, and even disagreeable.—*3) The augm. 6th arises from associating d-flat with the Leading-tone b.—*4) The augm. 6th (a-flat—f-sharp) is here again inverted (to a dim. 3d, f-sharp—a-flat).—*5) When the augm. 6th is inverted *beyond the octave* (i. e. as dim. *tenth*) the effect is much less objectionable.—*6) The d-sharp in these chords is quite frequently written e-flat, erroneously. The latter is peculiar to the *minor* mode (200).

207. Mixed chords in MINOR are limited to the SECOND-CLASS (II–II^7–IV–IV^7), and are obtained by *raising the 4th scale-step*, while the 6th step remains minor. For example:

Ex. 139. C-MINOR.

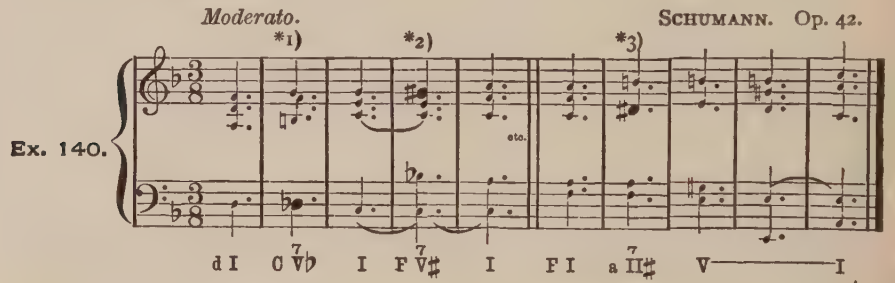


*1) The identity of these chords in C *major* on one hand, or in C *minor* on the other, depends, as usual, upon the *resolution*—, here solely upon the tones *e-flat*, as above, or *e-natural*, as in Ex. 138, measure 6.—See 193, and 200.—*2) For the reasons given in note *1) the progression into the *Dom.* (instead of the Tonic) chord is too indefinite; the I must immediately follow, at all events.—*3) The augm. 6th (a-flat—f-sharp) is here inverted, as dim. 10th. Comp. Ex. 138, note *5).—*4) These perfect 5ths are so seductive, that unusual caution must be observed in using the Mixed IV^7; the only reliable safeguard is the resolution into a *Tonic* chord. See Ex. 118, note *1).

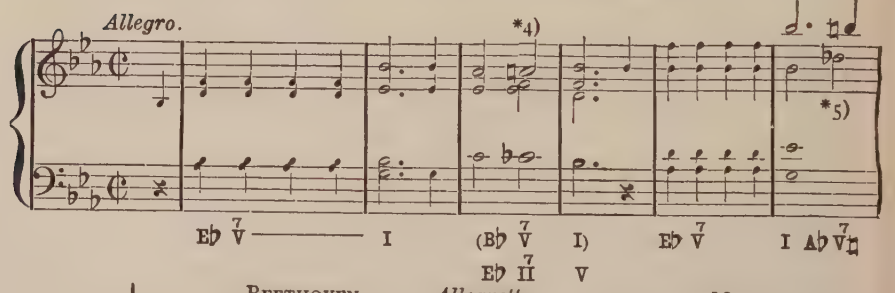
Additional illustrations:

Ex. 140.

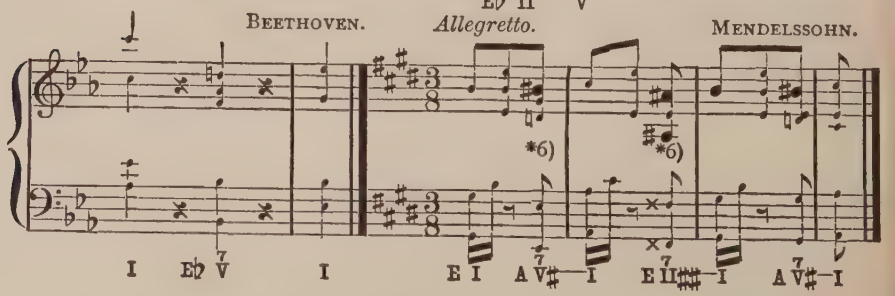
Moderato. SCHUMANN. Op. 42.



Allegro.



BEETHOVEN. *Allegretto.* MENDELSSOHN.

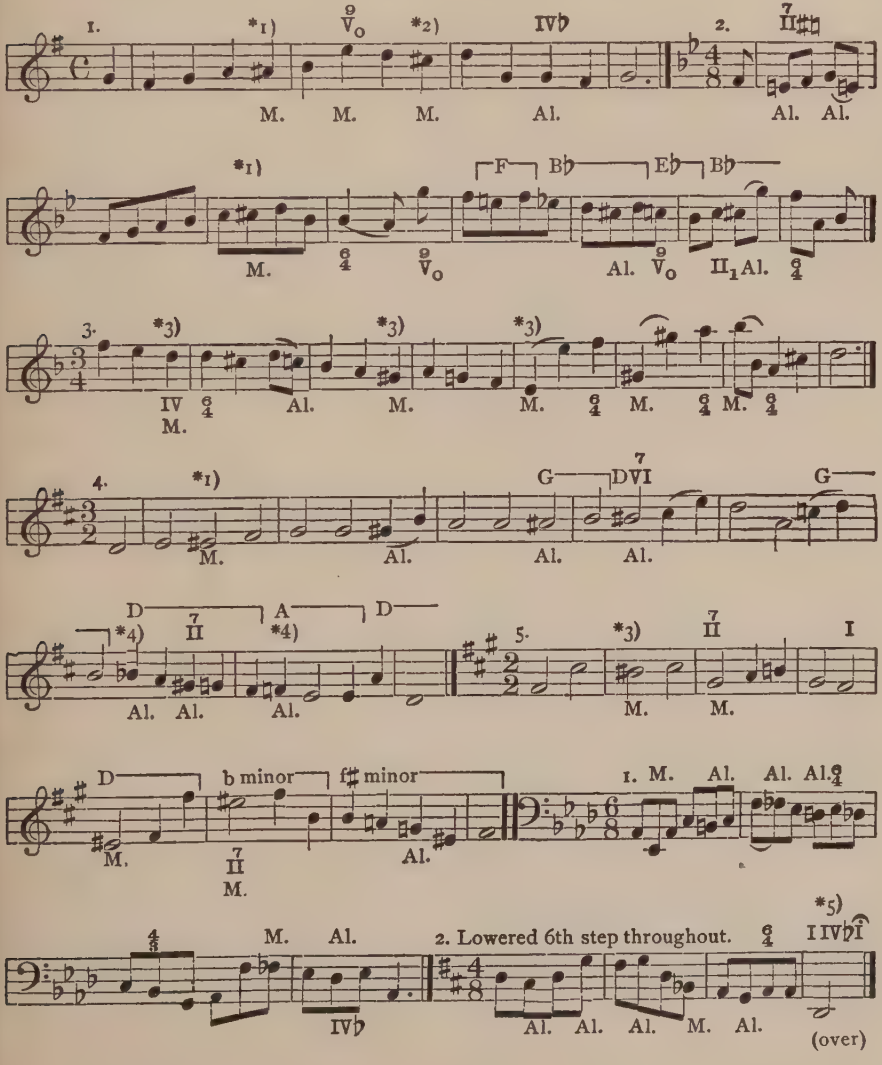


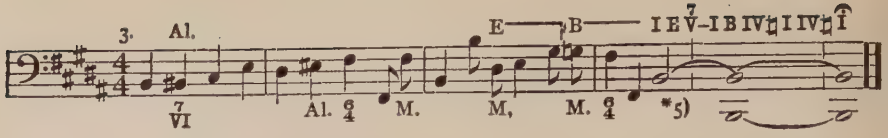
*1) Lowered 2d step; also premonitory of F major (as lowered 6th and raised 4th steps). Comp note *4).—*2) Raised 2d step.—*3) Raised 4th step.—*4) Both analyses are tenable (B-flat and E-flat), though *E-flat* major, as preceding and following Key, may be most probable.—*5) Mixed Dom.-Seventh of A-flat major.—*6) *6) Here the modulations are both effected through *altered steps* (as indicated).

Lesson 44.

Harmonize the Melodies of APPENDIX C, No. 10.

Harmonize the following Melodies and Basses; introducing *altered or mixed* chords at each note marked Al. or M. respectively; and modulating as indicated:





*1) The raised 2d step in Soprano is most suggestive of a Mixed *Dom.*-chord.—*2) The raised *4th* step *must* be in a *Second*-class chord.—*3) The Mixed chords in *Minor* are *exclusively Second-class.*—*4) Lowered 6th step.—*5) Such an addition to the Perfect Cadence is called a "Plagal ending." (Mat. Mus. Comp. § 155.)

CHAPTER XXXVII.

Extraneous Modulation.

208. Extraneous modulations are such as extend *beyond* the Next-Related Keys, in any direction. See 186, Rule I. The remote Key is usually reached by modulating through the *Next-related Keys which intervene*, i. e. from Signature to Signature in the direction of the desired Key—,

whereby *either the major or minor mode* of the intermediate *Signatures* may be taken.

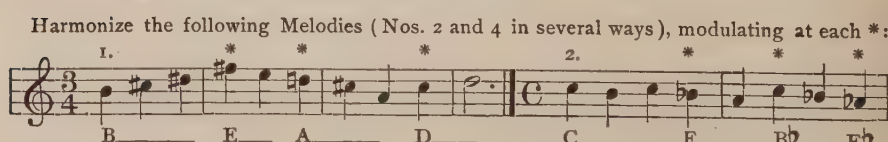
For illustration: from C major (or *a* minor) to A-flat major (or *f* minor), the following *Signatures* will be involved: ♮—♭—2♭—3♭—4♭ (see Ex. 123). The modulation may therefore represent any of the following lines of Keys:

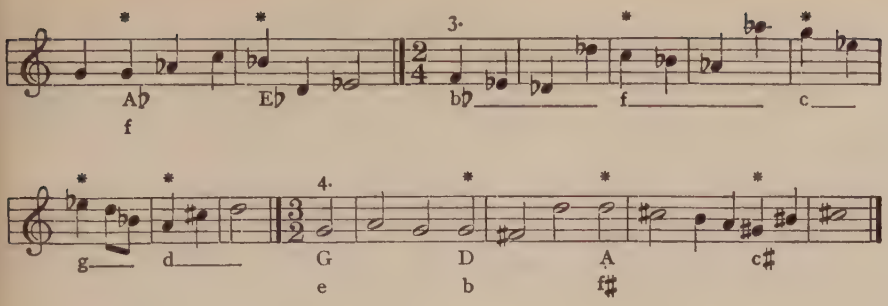
C (a)—F—B♭—E♭—A♭ (f)
" —d—g —c — "
" —F—g —E♭— "
" —d—B♭—c — "
" —F—B♭—c — "
" —d—g —E♭— "

Or, from B♭ (or g) to A (or f♯), through the Signatures 2♭—1♭—♮—1♯—2♯—3♯. Or, from D♭ (or b♭) to E (or c♯) thus: 5♭—6♭=6♯—5♯—4♯.

Lesson 45.

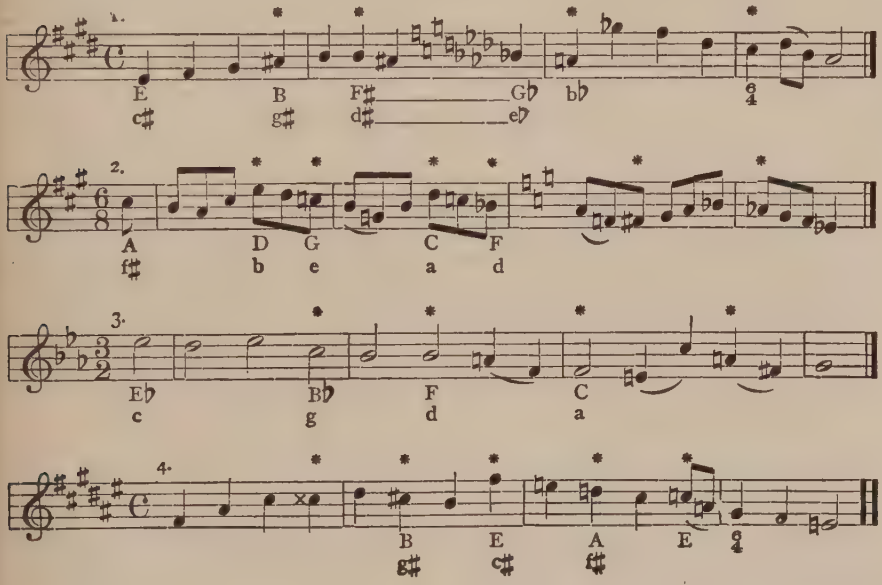
Harmonize the following Melodies (Nos. 2 and 4 in several ways), modulating at each *:





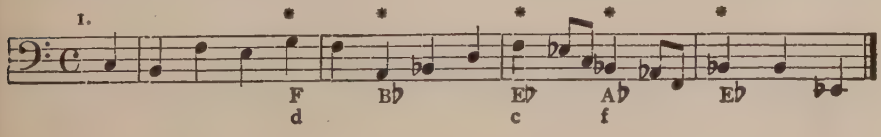
Lesson 46.

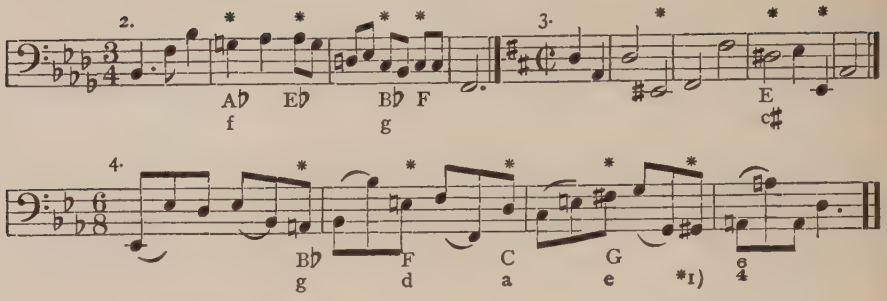
Harmonize the following Melodies, in at least two ways, with a modulation at each *, (Major or Minor):



Lesson 47.

Harmonize the following Basses, in at least two ways, with a modulation at each * (Major or Minor):





1) Raised 4th step of D major.

CHAPTER XXXVIII.

Direct Extraneous Modulation.

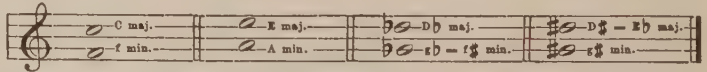
(Mat. Mus. Comp. §§ 280—289).

209. Under certain favorable circumstances a Remote Key may be reached *directly*, i. e. without passing through the intervening Signatures.

210. The first and best of these cases is a direct transition of 4 degrees (or Signatures) for which the author has adopted the term "MODULATORY STRIDE," and which is defined as follows:

> **The "Stride" is a perfect 5th *downward* from any *Major* Keynote, and *upward* from any *Minor* Keynote, with a *change of Mode*.**

For example: from C major down to f *minor;* or from c minor up to G *major*. The Stride-relation is represented in both directions by any perfect 5th, the *upper tone of which is a major Tonic*, and the *lower tone a minor Tonic*. Thus:

Ex. 141. 

etc.

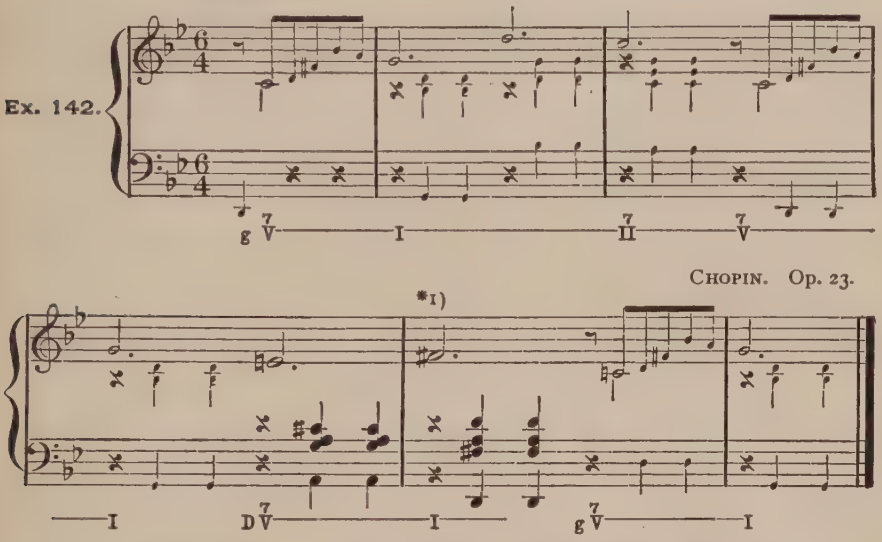
211. Upon reflection it will become apparent that the remote transition of the "Stride" results simply from an ultimate *exchange of Mode* (minor for the expected major, and vice versâ), without which it would be an ordinary Dom. or Subdom. modulation, respectively. That is, from C major to f *minor* instead of F major; and from g minor to D *Major* instead of d minor.

Confusion can however only be avoided by mechanically observing the formula in 210.

Therefore this modulation has a certain bearing upon 213—215, which see. For illustration:

Moderato.

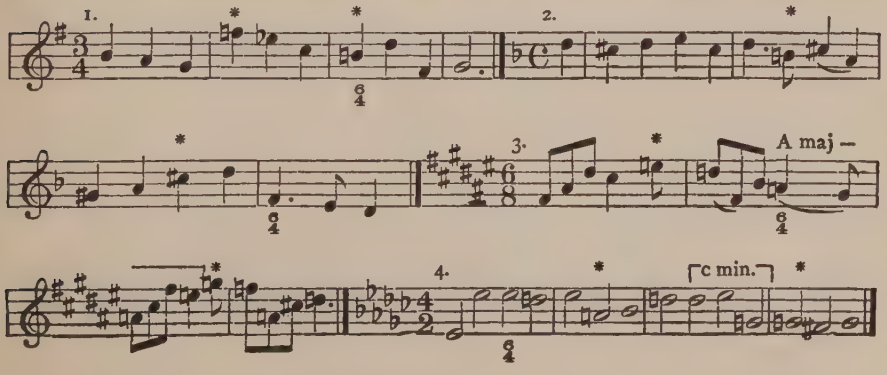
Ex. 142.

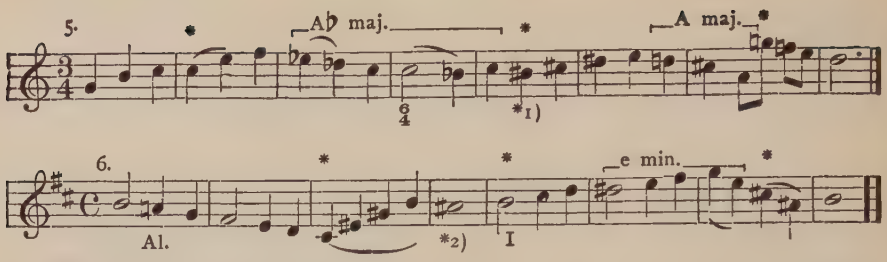


*1) With f-natural (instead of f-sharp) it would be the next-related Key, d *minor*. Why f-sharp should however be preferred to f-natural, in the vicinity of *g minor*, is very obvious, and affords one of the best demonstrations of the practically close intimacy of the Stride-relation, notwithstanding the actual difference of 4 degrees in the Key-signatures—, see g minor —D major, Ex. 123.

Lesson 48.

A. Indicate the Stride-relation (by Keynotes) from every major and every minor Key.—
B. Harmonize the following Melodies, introducing the modulatory "Stride" at each *:





*1) The Stride from A-flat maj. is d-flat *or c-sharp* minor.—*2) When the last chord of a Key is, as here, the *Dom.* chord of the prospective Key, the latter can be taken up at once, without any additional intermediation.

CHAPTER XXXIX.

Direct Extraneous Modulation. Continued.

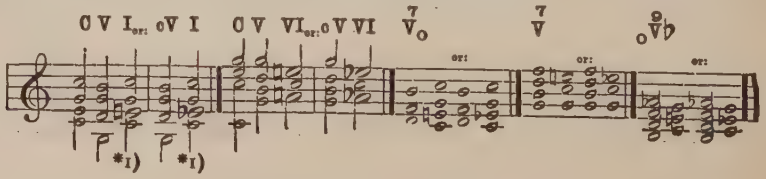
212. The next best direct transition to a remote Key is the CHANGE OF MODE (from Major to Minor, or vice versâ) upon the SAME TONIC; for instance, from C to c, or d to D, or G-flat to f-sharp, etc. Although this transition into the "OPPOSITE MODE" actually effects a *change of location* in the modulatory circle (equal to 3 degrees —, see C—c, Ex. 123), it is hardly to be regarded as a "Modulation" in the strictest sense of the term. For it is only a modification of one and the same tone-family or Key, as was demonstrated in 84 and 87, which review.

213. The possibility of thus changing the mode of any Keynote is traceable to THE COINCIDENCE OF THE DOMINANT CHORDS (V, $\overset{7}{V}$, $\overset{7}{V}_o$, $\overset{9}{V}$ altered and $\overset{9}{V}_o$ altered) IN THE TWO MODES (see 88; 140; 155, Rule I; Ex. 129, note *1),

> **by reason of which any Dominant chord may be resolved at option *either into the Major or Minor* Tonic chords of the corresponding Key. See Ex. 91, note *8).**

The resolution into *major* is, however, always the more natural. For example:

Ex. 148.

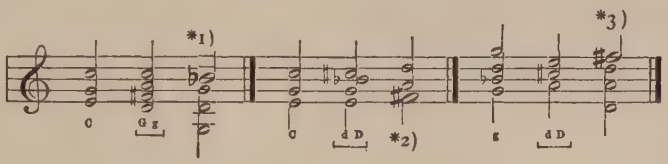


*1) The tone upon which this exchange of mode solely devolves is the *Mediant* (3d step) of the Key —, in this case e-natural for C *Major*, and e-flat for C *Minor*. See 200.

214. A Dominant chord, then, which enters from Major (i. e. in the capacity of a Major-Key Dom.) may resolve into the corresponding Minor Tonic (by substituting the minor Mediant for the expected major Mediant); or, inversely, a Dom. chord which enters from minor, may resolve into the corresponding major Tonic; thus effecting an "Exchange of Mode." This may be done at any point in a Phrase, and is only subject to such conditions and limitations as are patent to a cultivated ear. See 221 b.

215. The coincidence of the Dom. chords in major and minor is very frequently utilized as a means of reaching *other* remote Keys directly, *by substituting the opposite mode* for what would otherwise be a *next-related* Key. This is always the case with the "Stride" (see 211); and also with such examples as the following:

Ex. 144.

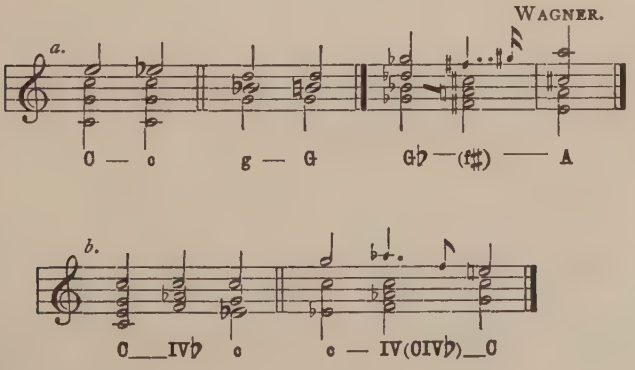


*1) With b-natural it would be G *major*, a *next-related* Key of the C-major which precedes. Substituting the minor Mediant b-*flat* makes the modulation remote.—*2) With f-natural it would be the next-related Key, d-*minor;* with f-sharp it is a remote Modulation.—*3) The Stride. Compare Ex. 142, note *1).

216. The exchange of mode may also be accomplished by the simple *chromatic inflection of the Mediant itself* (Ex. 145 *a*);

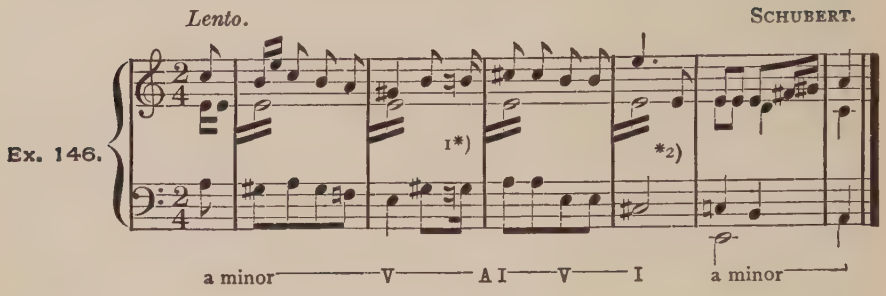
Or through Altered chords with the *lowered 6th step* (Ex. 145 *b*):

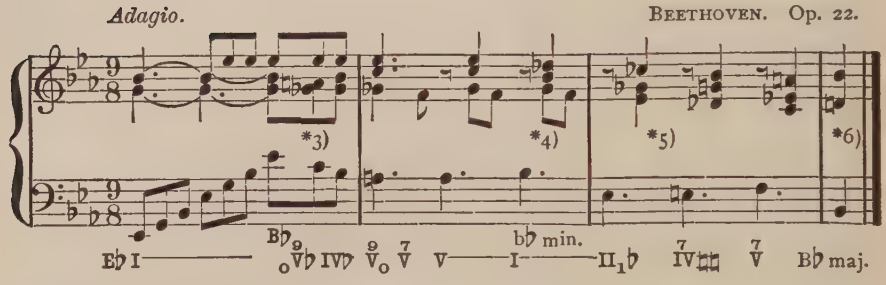
Ex. 145.

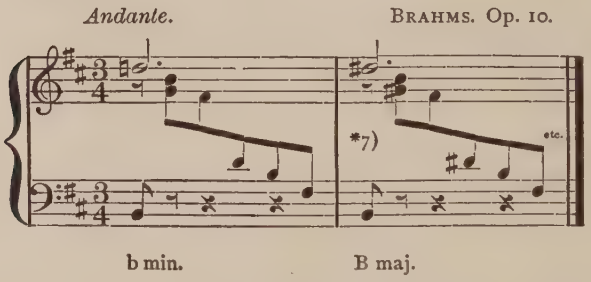


Additional illustrations:

Ex. 146.



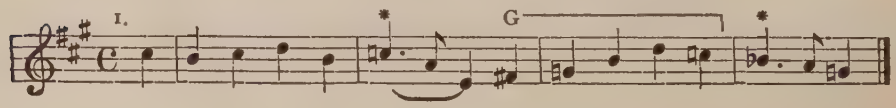


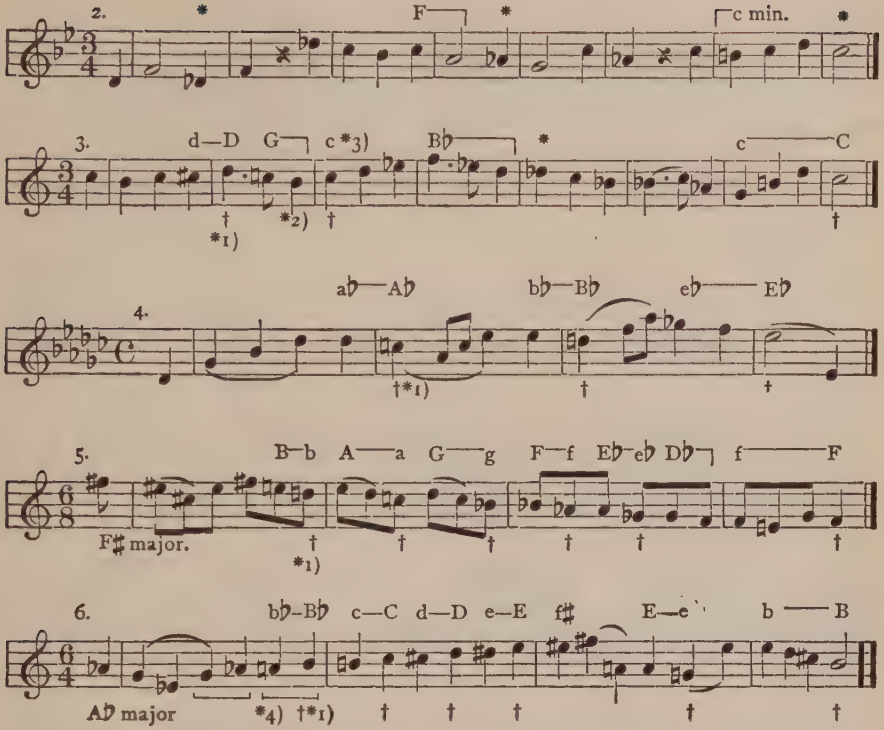


*1) The Dom. Triad of A *minor*, resolving into A-*major*.—*2) A direct chromatic transition from major to minor.—*3) The g-flat is the lowered 6th step of the *next-related* Key, B-flat *major*.—*4) The Dom. chords of B-flat *major* resolve here into b-flat *minor*.—*5) See Ex. 136, note *2).—*6) B-flat *major* here finally asserts itself.—*7) Direct chromatic transition from b minor to B major. Comp. note *2).

Lesson 49.

Harmonize the following Melodies, introducing the Opposite mode at each *:





*1) At each † the foregoing Dom. chord is resolved into the "opposite Mediant" of the (evaded) Next-related Key (215).—*2) Lesson 48, note *2).—*3) C minor is substituted for C major, thus effecting the Stride-transition (211).—*4) The "Cross-relation" (see 187) is very often unavoidable in *Sequences*, as here; but, as usual, the Sequence justifies it (121).

CHAPTER XL.

Sequence and Cadence Modulations.

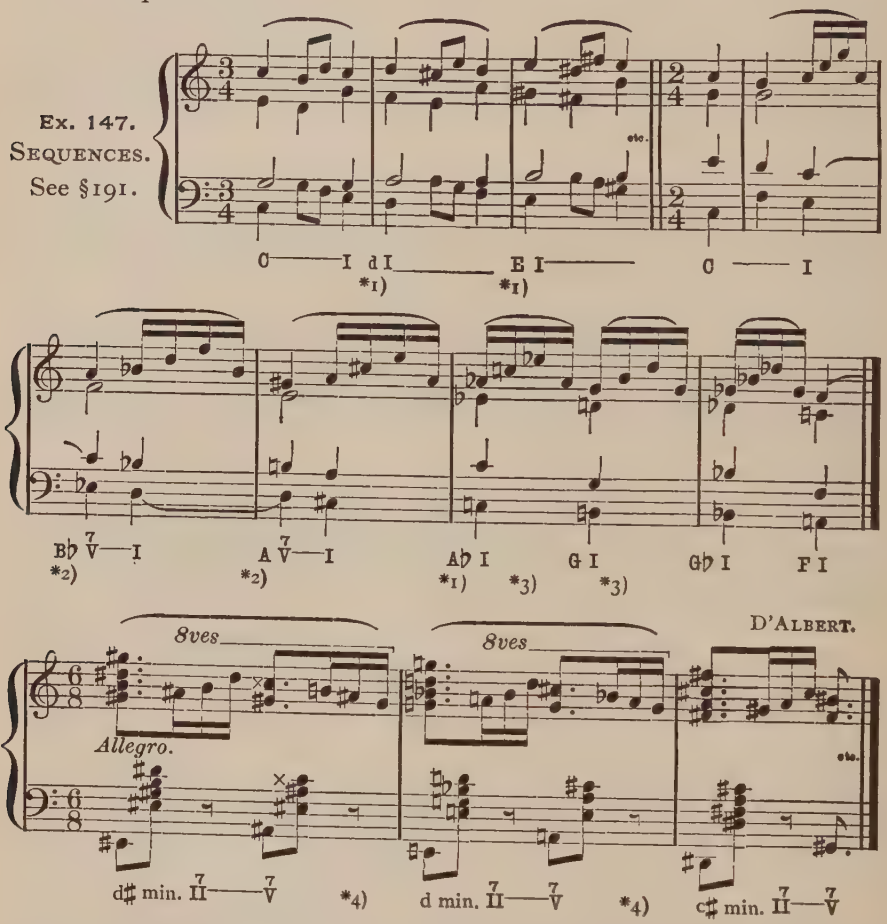
217. In all the foregoing modulations, both Next-related and Extraneous, the fundamental rule given in 186 (Rule IV and context), has been strictly observed. But *more abrupt* and irregular modes of transition are possible, under favorable circumstances. The most auspicious conditions are afforded by the momentary *breaks or interruptions* which occur between SEQUENCES, or at (i. e. after) CADENCES of any kind. Hence:

218.

Upon passing a Cadence *into a Sequence, or into a new Phrase,* or distinct *Member of a Phrase,* an abrupt transition may be made into the desired Key (whether next-related or not) without necessarily interposing the usual Dom. (or 2d-Dom.) modulatory chord.

For example:

Ex. 147.
SEQUENCES.
See §191.



D'ALBERT.

*1) The transition is made abruptly from the I of the old Key, into the I of the new (comp. 186, Rule II). There is no common tone connecting the Keys (219), but the Sequences are so close and coherent that the connecting-link may be dispensed with.—*2) This modulation is made in the regular way, but the Keys are not related.—*3) Here one single chord must suffice to represent a Key. Comp. 190. It is accounted for by the Sequence.—*4) The old Key is abandoned at its Dom.-7th (comp. 186, Rule IV). The connecting link (219) into the first Sequence (which is a very close one) is the tone c× = d (Leading-tone becoming a Tonic).

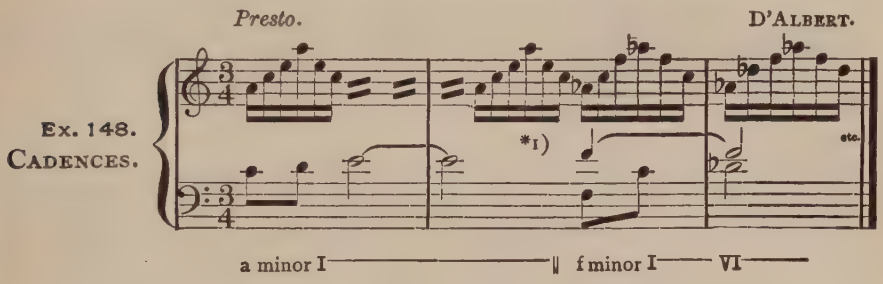
219. The limitations for such abrupt modulations are: that there shall be a reasonable degree of coherency between the Keys; and, as a general though not inexorable rule, that at least *one tone* be sustained from the old Key into the new one, as connecting-link. Of these "pivotal" modulatory tones the best are

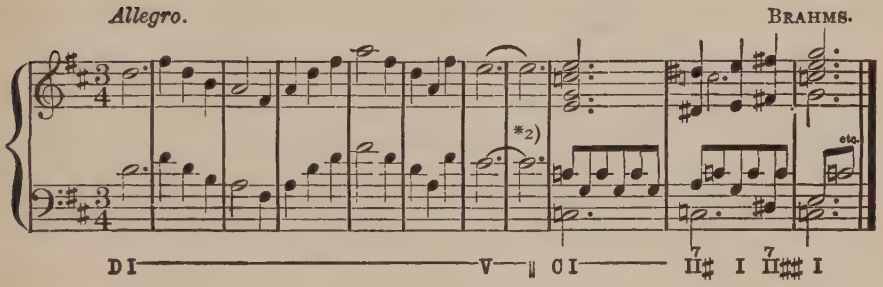
the Tonic, *Mediant,* or Dominant of the old Key,

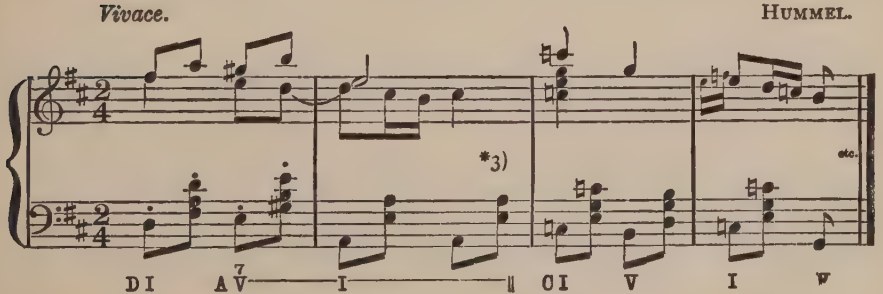
which may become at option respectively either Dom., *Mediant*, Tonic, or *Leading-tone* (perhaps 4th or 6th steps, as 7th or 9th of the Dom.-chords) in the new Key.

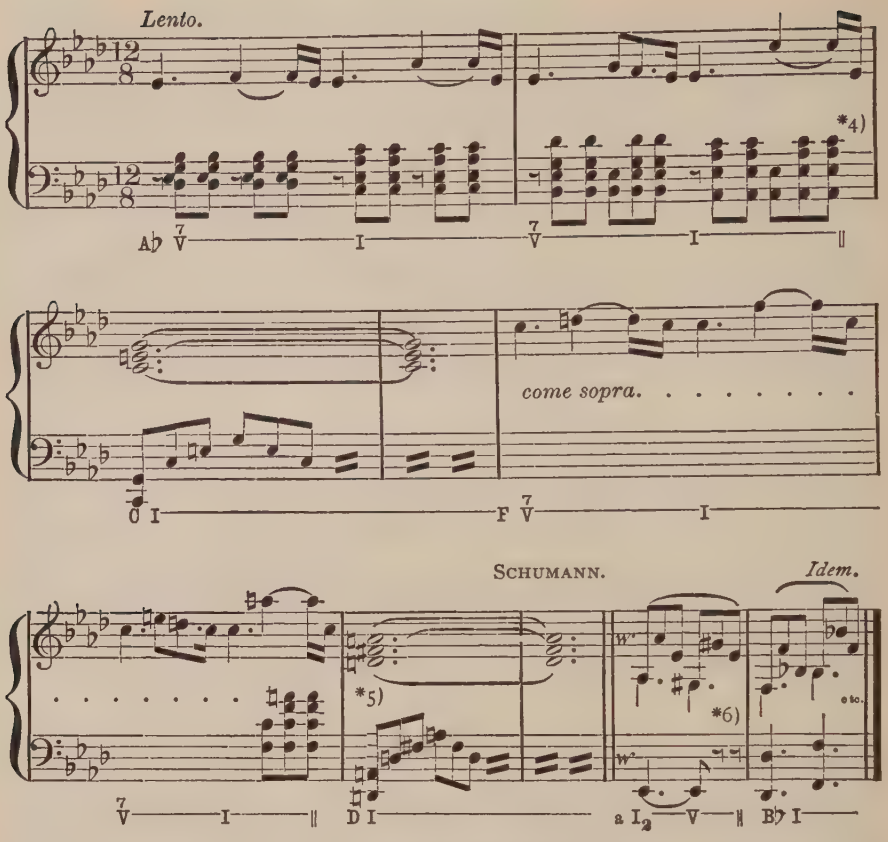
Illustrations of abrupt Cadence-modulations, and "pivotal" modulations:

Ex. 148.
CADENCES.





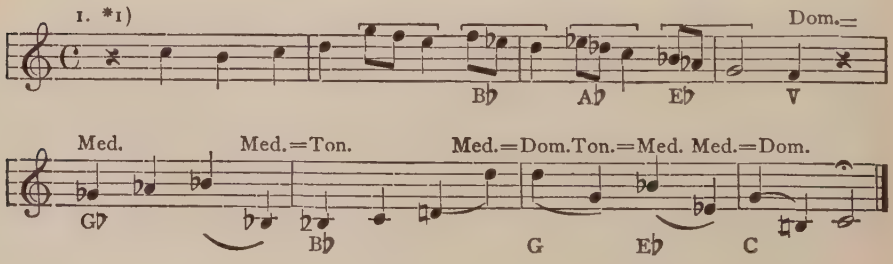


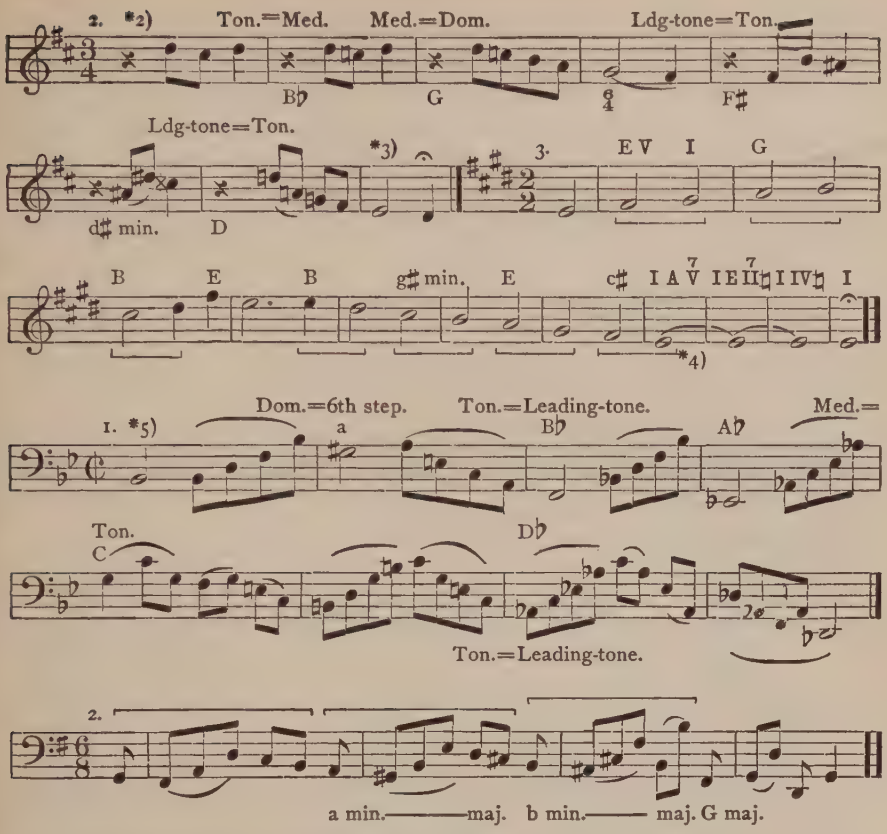


*1) Cadence (Semi-) in A minor, followed by the abrupt announcement of the f-minor I. The connecting link is c-c (Mediant becoming Dominant).—*2) Dom. Semicadence in D, followed by the I of C. Connecting link e-e (2d step becoming a Mediant).—*3) Tonic cadence; connecting link e-e (Dominant becoming Mediant).—*4) Transient Tonic cadence; connecting link c-c (Mediant becoming Tonic).—*5) Connecting link a-a (Mediant becoming Dominant).—*6) Dom. Semicadence in A minor, followed by the I of B-flat major.

Lesson 50.

Harmonize the following Melodies and Basses, with abrupt modulations as indicated:





*1) The Bass begins on the first beat; the three upper parts follow on the second.—*2) Like note *1) throughout.—*3) This irregular rhythmic form of the perfect Cadence is not unusual, and is justified here by its agreement with the Semicadence.—*4) Plagal ending. Comp. Lesson 44, note *5).—*5) Close Harmony. One Melody-note to each slur.

CHAPTER XLI.

Special Application of the Diminished-7th Chord, in Both Modes.

220. The most efficient and attractive form of the entire Dominant chord-class, and the most flexible chord in the whole range of Harmony, is the CHORD OF THE DIMINISHED 7TH. It is very frequently employed for the purpose of Modulation, and, on account of the unlimited facility of its connections, it serves as a transitional medium between *any Keys*, *regardless of Mode*, and almost entirely irrespective of the ordinary consideration of Key-relation.

221. The following points must be borne in mind:

a. The Chord of the Dim. 7th is the Incomplete form of the Dom.-Ninth, and is found upon the *Leading-tone* of the *Minor* mode (165).

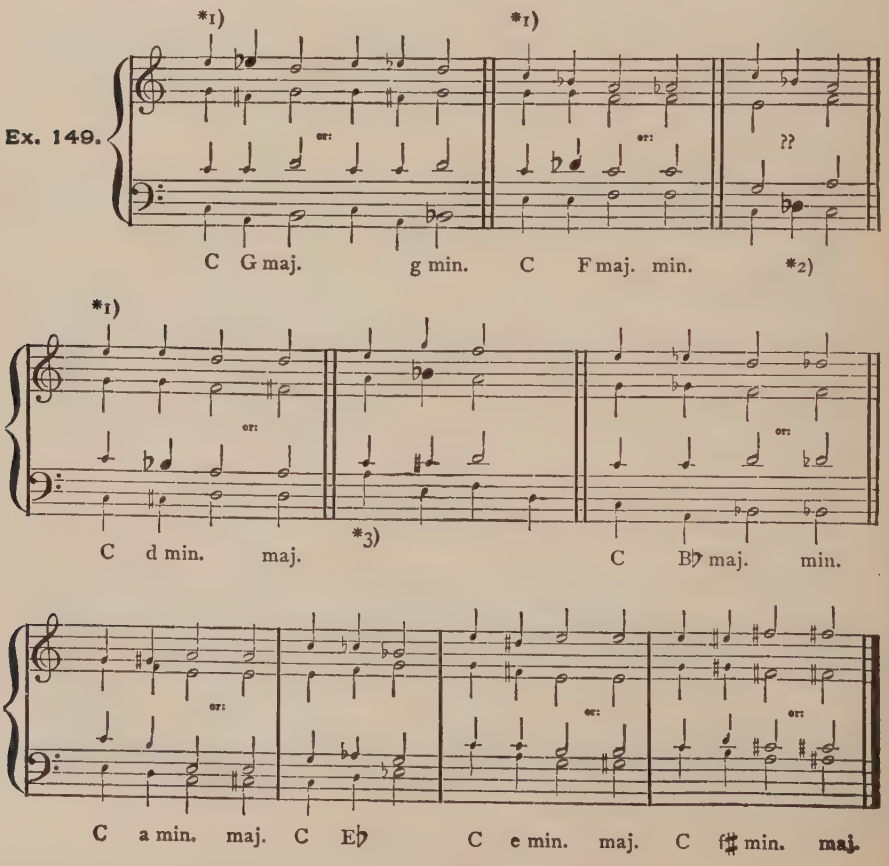
b. Though legitimately a *minor-mode* chord, the Dim.-7th is equally available (as Altered chord) in the *Major* mode; i. e. it may resolve indifferently, either into the Minor or Major I. Ex. 129, note *1); Ex. 131, No. 2 (D major), and paragraphs 213–214. See also 166, and Ex. 91, note *8).

c. A Dim.-7th may be introduced, in some form or other, after the Tonic chords (I or VI) *of any other major or minor Key;*

the choice of Inversion and Position will depend upon the form and location of the preceding chord.

d. The *notation* of the Dim.-7th must conform to the NEW KEY (into which it resolves). See the table made in Lesson 29, B.—Whatever chromatic inflections appear must be effected according to the Rule in 187, which see.—For illustration:

Ex. 149.



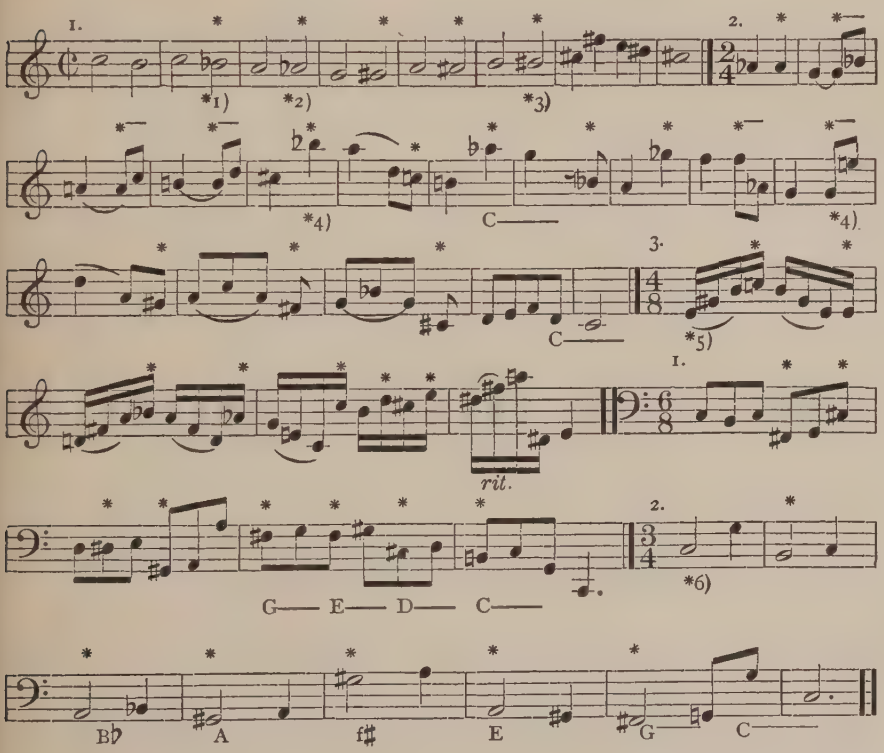
*1) With e-flat, instead of e, the first chord will represent the I of C *minor* also.—*2) Avoid that form of the Dim.-7th in which the 7th (the original 9th) lies in the Bass. See Ex. 108, note *4).—*3 In this example the VI of C major is used. It represents, at the same time, the I of a minor.

Lesson 51.

A. Connect the I of every Major and Minor Key, with the Dim.-7th of C major (and minor), in the manner of Ex. 149.—**B.** Connect the I of G major with the Dim.-7th of every other Major (and minor) Key, as in Ex. 149. All Inversions optional.

Lesson 52.

Harmonize the following Melodies and Basses, introducing a Dim.-7th (*choice optional*) at each *:



*1) The Dim.-7th of d minor, D major, or F major, at option.—*2) The Dim.-7th of C major, c-minor, or E-flat major, at option.—*3) The choice here is limited to c-sharp minor, in view of the approaching Cadence in that Key.—*4) The choice here is limited to D major or d-minor, in view of the following slur.—*5) Place the three accompanying parts *together* upon the Bass-staff (inverting the style of "close harmony"), and use one chord to each slur, strictly. See Ex. 98, note *2). The choice of Key is rendered evident by the slurs.—*6) The three upper parts *rest* on the 1st beat of each measure, excepting the Cadence, and enter together (close harmony) on the 2d beat. Thus: 𝄽 ♩ ♩ |

CHAPTER XLII.

Consecutive Dominant Chords.

(Mat. Mus. Comp. §§ 290—299).

222. The most notable exception to the fundamental law of Dominant chord-progression given in 64, (Rule III) and adhered to strictly hitherto, is encountered when the Dominant chord, instead of resolving into the Tonic harmonies of its own Key, DIGRESSES INTO ANOTHER DOMINANT CHORD (of some other Key). This very irregular but by no means infrequent progression may be demonstrated on the ground that the obligations of the first Dominant chord are simply *transferred* to a chord of exactly similar obligations in another Key. And the connection is moreover usually effected by means of one or more *chromatic* inflections, which is the smoothest of al. modes of melodic progression.

223. The CHROMATIC INFLECTION is directly opposed to the Diatonic progression, and consists, as has already been seen, in simply *raising or lowering* a certain Letter or Scale-step by an Accidental, without effecting an actual *progression* from one Letter or Step into another It does not conform to the line of the diatonic Scale, but is *oblique* to the latter. It is an abrupt digression from the natural order of tones, and its effect is therefore to *cancel the Key instantly and completely*. No Resolution, and no diatonic chord-progression of any kind, within the same Key, can include any chromatic inflection (only excepting the possible chromatic introduction of ALTERED TONES). Consequently the chromatic inflection (*unless incidental to an Altered or Mixed chord*) invariably executes a change of Key, as abrupt as it is inevitable, and usually so quietly and smoothly that this species of melodic succession, i. e. "Chromatics," is properly regarded as the most powerful and seductive factor in Modulation. The fundamental principle of chord-analysis, that "the identity of a chord depends upon its progression" (Ex. 128, note *3), is also canceled by every chromatic inflection, which, as stated above, instantly severs the connection of the chord with its Key. From this, the peculiarity, but at the same time, the extreme importance of the chromatic inflection, and the frequency of its employment, especially in modern Composition, may be inferred. A great number of curious chord-progressions may be and are effected through the agency of Chromatics, which elude all rational demonstration, and can be accounted for in no better way than as a manifestation of seductive chromatic agency. Therefore the chromatic inflection must be accepted as one of the chief excuses for the peculiar harmonic connection of which this chapter treats, viz. *the direct succession of* DIFFERENT DOMINANT CHORDS.

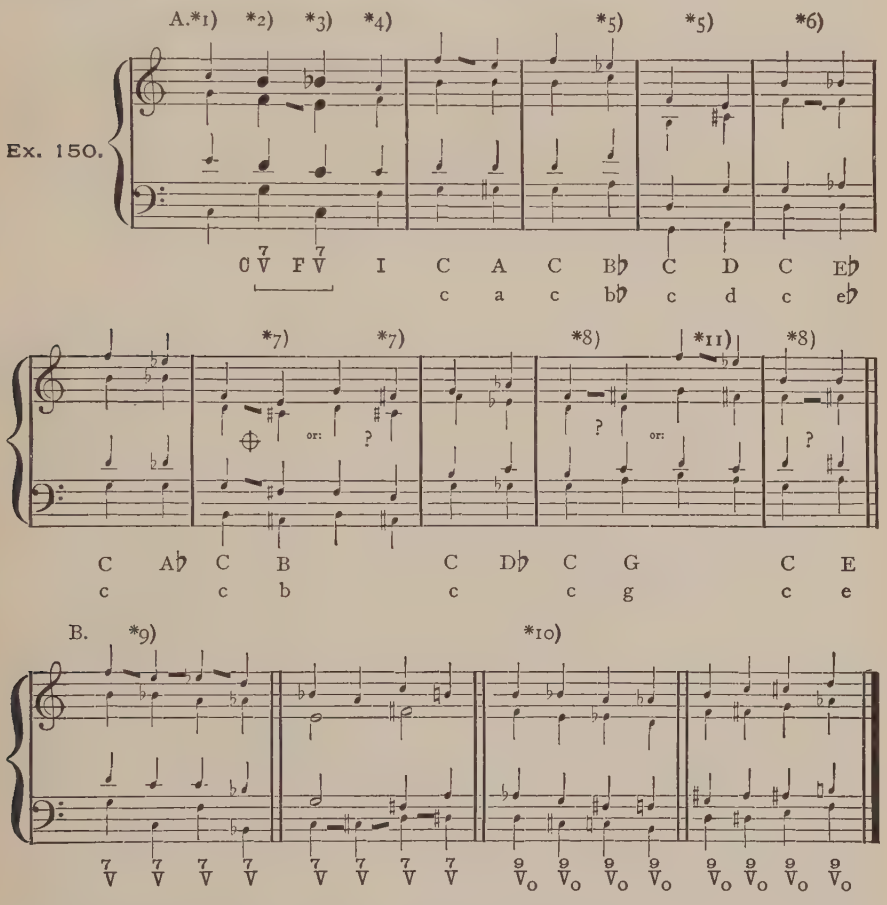
224. This principle of chromatic Dominant succession is to be applied in the most general and comprehensive sense; i. e. the Dominant chords of one Key IN ANY FORM (V, $\overset{7}{V}$, $\overset{7}{V}_o$, $\overset{9}{V}$ or $\overset{9}{V}_o$) can progress into ANY FORM of the Dominant of another Key (V, $\overset{7}{V}$, $\overset{9}{V}_o$, $\overset{9}{V}$ or $\overset{9}{V}_o$), EITHER MAJOR OR MINOR.

225. The new Dominant chord may resolve properly into its Tonic, or may be followed again by another Dominant chord. When the series of Dominant Chords is thus protracted, either the Soprano or the Bass is likely to progress in *continuous chromatic descent or ascent* (Ex. 150, B).

226. RULE I. The *Seventh* of each Dominant Discord must be correctly resolved (diatonically downward), *if possible.*

RULE II. The chromatic progression should be approached, if possible, in the corresponding direction. **See also 187, and 55.**

Ex. 150.

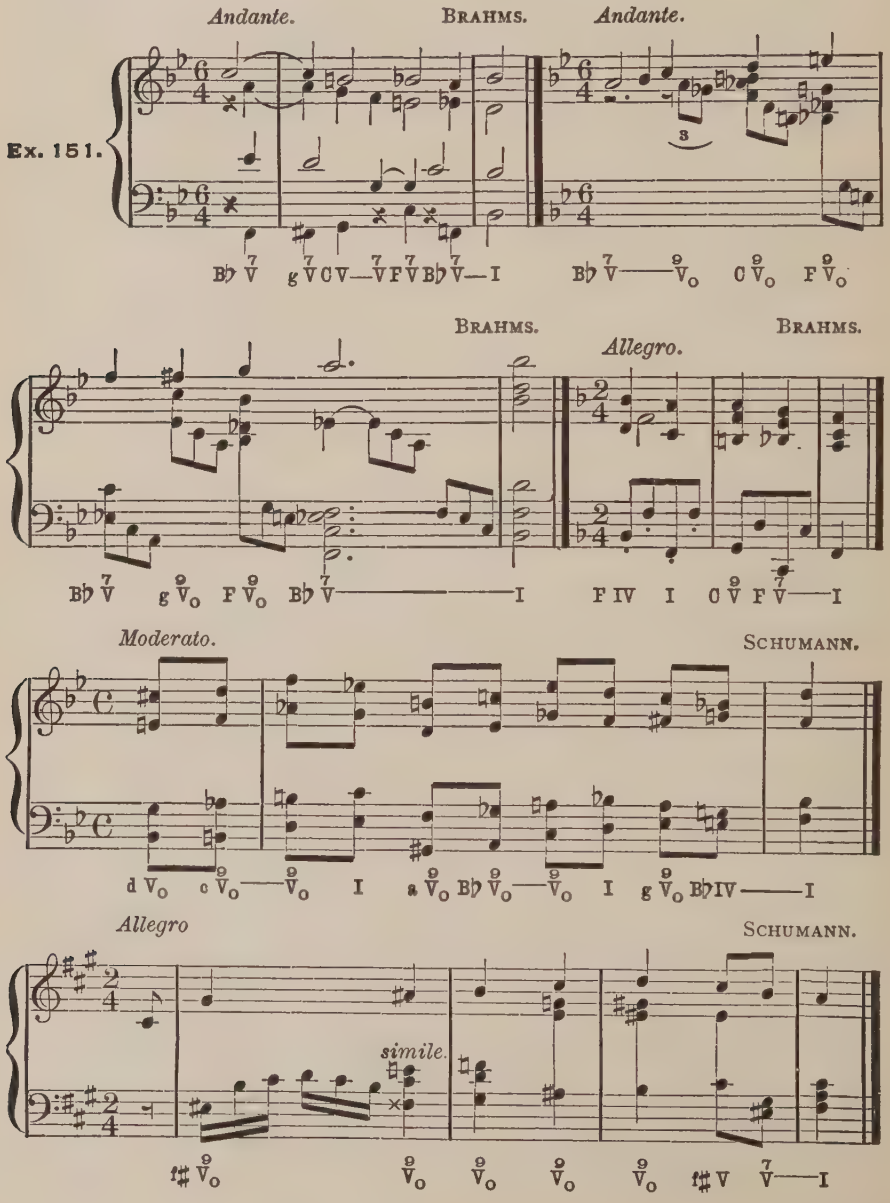


*1) May also be c *minor*.—*2) May also be *any other form* of the Dom.-harmony of C ($V, V^{7}_{o}, V^{9}_{o}, V^{9}_{o}$).—*3) May be *any other* Dom. chord of F. See 224; and 226, Rule II.—*4) May also be F minor. See 213.—*5)*5) In both of these cases there is no chromatic inflection involved.—*6) Here the Seventh of the Dom. chord remains stationary; comp. 149.—*7) The substitution of the *Diminished*-7th (V^{9}_{o}) for the Dom.-7th, is an effective means of facilitating all such awkward successions as these.—*8)*8) In both of these cases the 7th is obliged to ascend. See 226, Rule I. Therefore the connections are somewhat objection-

able.—*9) See 225; and 226, Rule II. The identity (i. e. the Keys) of each of these chords can only be determined by conjecture. See 190, and 223.—*10) The *notation* of the Diminished-7th, in chrom. succession, cannot be definitely regulated, because the Keys represented are only conjectural. In descending succession *flats*, and in ascending succession *sharps*, are apt to prevail.—*11) Comp. Ex. 133, note *3).

Additional illustrations:

Ex. 151.



Lesson 53.

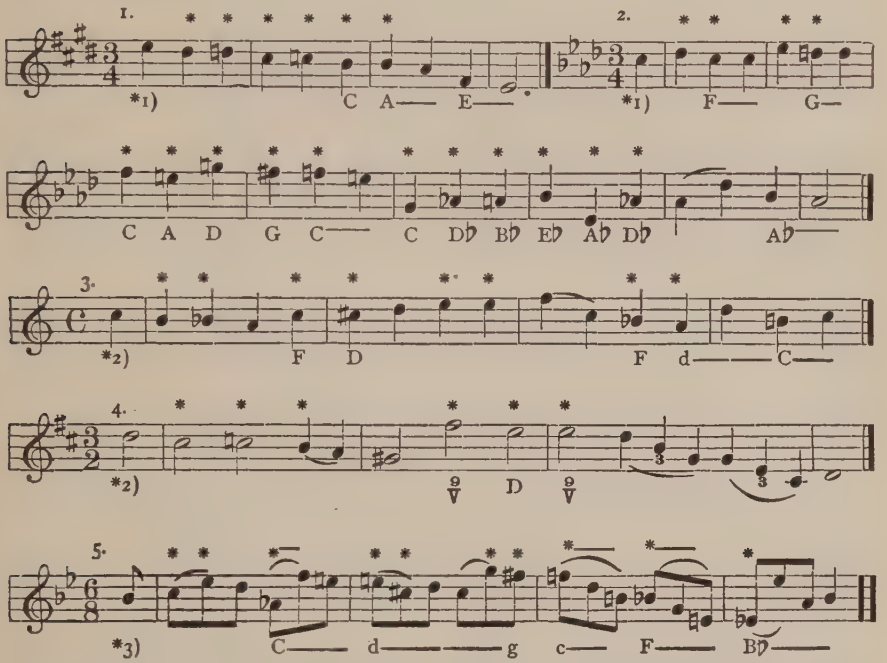
A. Connect the following chords, in open 4-part Harmony, Inversion (Bass) optional:

A maj. $\overset{7}{V}$—D $\overset{7}{V}$; E♭ $\overset{7}{V}$—c $\overset{7}{V}$; D $\overset{9}{V}$—F $\overset{7}{V}$; f $\overset{9}{V_o}$—D♭ $\overset{7}{V}$; E $\overset{7}{V}$—C $\overset{7}{V}$; B♭ $\overset{7}{V}$—A♭ $\overset{7}{V_o}$;

G $\overset{9}{V}$—A $\overset{7}{V}$; B $\overset{7}{V}$—f♯ $\overset{9}{V_o}$; g $\overset{9}{V_o}$—d $\overset{9}{V_o}$—a $\overset{9}{V_o}$—e $\overset{9}{V_o}$; c♯ $\overset{9}{V_o}$—f♯ $\overset{9}{V_o}$—b $\overset{9}{V_o}$—e $\overset{9}{V_o}$. *4)

B. Find and play these successions at the PIANOFORTE, in close Harmony.

C. Harmonize the following Melodies, with successive Dom. chords, as indicated at each * (Inversion optional):



*1) The $\overset{7}{V}$ at each * in these Melodies.—*2) Either $\overset{7}{V}$ or $\overset{7}{V_o}$ at each *.—*3) At each * a Dim.-7th ($\overset{9}{V_o}$).—*4) Resolve the last chord, in each case.

CHAPTER XLIII.

Enharmonic Treatment of the Chords of the Diminished-7th and Dominant-7th.

(Mat. Mus. Comp. §§ 300—308; 314, 3).

227. The "enharmonic change," or "exchange," is obtained by inflecting the next higher or lower letter so that it AGREES IN SOUND with the original

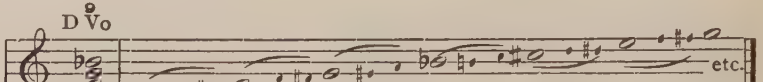
tone. Thus, the tone *g-flat* is "enharmonically identical" (in musical practice) with *f-sharp*, and either of these two tones may be enharmonically "exchanged" for the other. The enharmonic equivalent of b is c-flat; of f, e-sharp; of *d* there are two enharmonic equivalents, c-double-sharp and e-double-flat; and so on. Review 181; and Ex. 123, with its note.

228. The enharmonic exchange involves an inevitable change of Key, or modulation, as the two enharmonic equivalents cannot belong to the same Key.

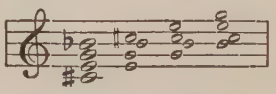
229. This modulatory factor is most commonly applied in the *chords of the* DIMINISHED–7TH, which admit of the enharmonic exchange to a very remarkable extent, and with that facility and flexibility which characterize every movement of these extraordinary chords. (165.)

230. The wonderful ambiguity of the Dim.-7th is chiefly owing to the peculiarity of its structure, consisting as it does of *equal contiguous intervals* (of three half-steps each), which divide the 12-tone chromatic octave into four equal parts. This is best seen and understood at the Keyboard of the Pianoforte. Thus:

Ex. 152.



In consequence of this uniformity of structure, there is no external mark of recognition by means of which the various forms or Inversions of the Diminished-7th chord might be distinguished IN SOUND from each other. The four forms (Inversions) of the above chord:



all present the self-same *external form, upon the keyboard of the Pianoforte, and are not distinguishable from each other* as chords of the 7, $\frac{6}{5}$, $\frac{4}{3}$ and 2, respectively; because the actual difference in the size of the interval b-flat—c-sharp (augm. 2d) while recognizable on the paper, in the *notation* of the Dim.-7th chord (comp. Ex. 93, note *1), disappears in the *sound* of the chords, on account of the *enharmonic coincidence* of the augm. 2d with the minor 3d.

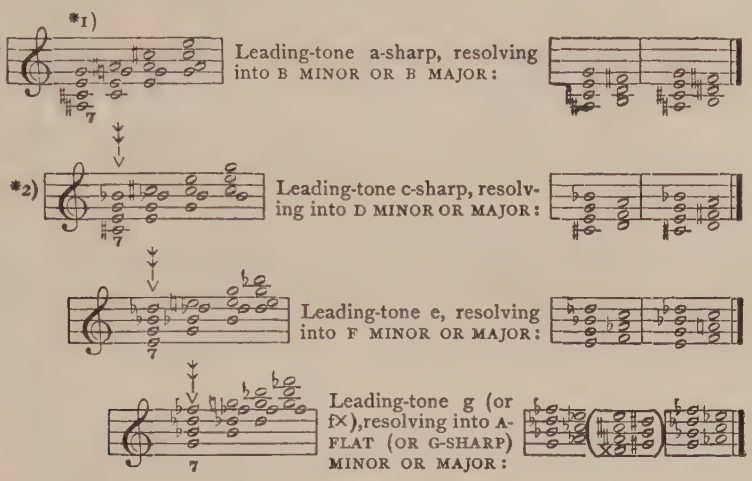
231. As the different Inversions of the Dim.-7th-chord can therefore not be distinguished from each other in sound, it follows that the identity of the *separate intervals* is not distinctly definable, or recognizable BY EAR. That is, it is impossible to determine, by ear, *which of the four tones is the Leading-tone*, which the original *9th*, which the *7th*, etc. Hence,

> ***each tone* of the Dim.-7th chord may be assumed in turn to be a *Leading-tone*, whereby it will represent in each case a *different Key*, and will be subject to a corresponding alteration of *Notation*.**

As the alteration in notation does not alter the *sound* of the interval or chord, it will simply be an "Enharmonic Exchange."

For example, adopting the Dim.-7th chord of b minor:

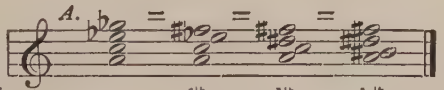
Ex. 153. (AT PIANOFORTE.)



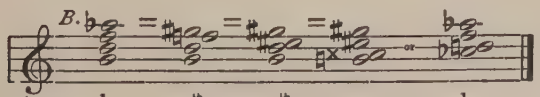
*1) The form and notation of each chord of the Dim.-7th is defined by the formula given in 165 (which see); viz. it must constitute a *chord of the Seventh upon the Leading-tone* of each Key, respectively, and correspond in notation to the minor scale of its Key.—*2) Here the $\frac{9}{5}$-form of the original chord (V_9 in b minor) on c-sharp, is transformed into a chord of the 7th on the tone c-sharp, whereby an *enharmonic change from a-sharp to b-flat* is involved. The selfsame procedure gives rise to the other two enharmonic exchanges which follow.

232. The same system of enharmonic exchange is applied with similar results to the *other two* chords of the Dim.-7th, which lie respectively a half-step above and below the one upon a-sharp (manipulated in Ex. 153). For illustration:

Ex. 154. (AT PIANOFORTE).



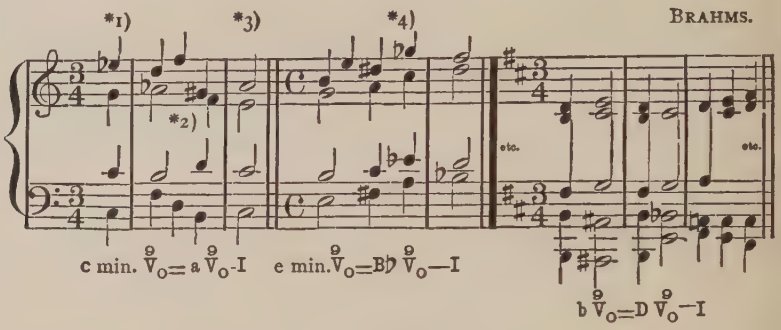
Leading-tone: a. f♯. d♯. b♯.
Keys: b♭ (B♭). g (G). e (E). c♯ (C♯).



Leading-tone: b g♯. e♯. cx. d.
Keys: c (C). a (A). f♯ (F♯). (d♯). e♭ (E♭).

233. The application of these "exchanges" in Enharmonic Modulations is made as follows: the chord of the Dim.-7th is introduced in its own Key (i. e. in the notation corresponding to its scale,— but in Minor or Major indifferently), and, upon repetition, or during a series of repetitions, the *notation* is altered, according to the given tables, to agree with that of the desired Key. For example:

Ex. 155.

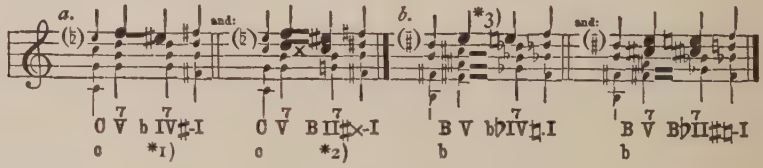


*1) Or C major.—*2) A-flat is enharmonically exchanged for g-sharp. And, as is here shown, the exchange need not be made in the same part.—*3) Or A major.—*4) The enharmonic coincidence of the chords renders all such peculiar melodic progressions (as here in Soprano) excusable.

Enharmonic Transformation of the Dominant-7th.

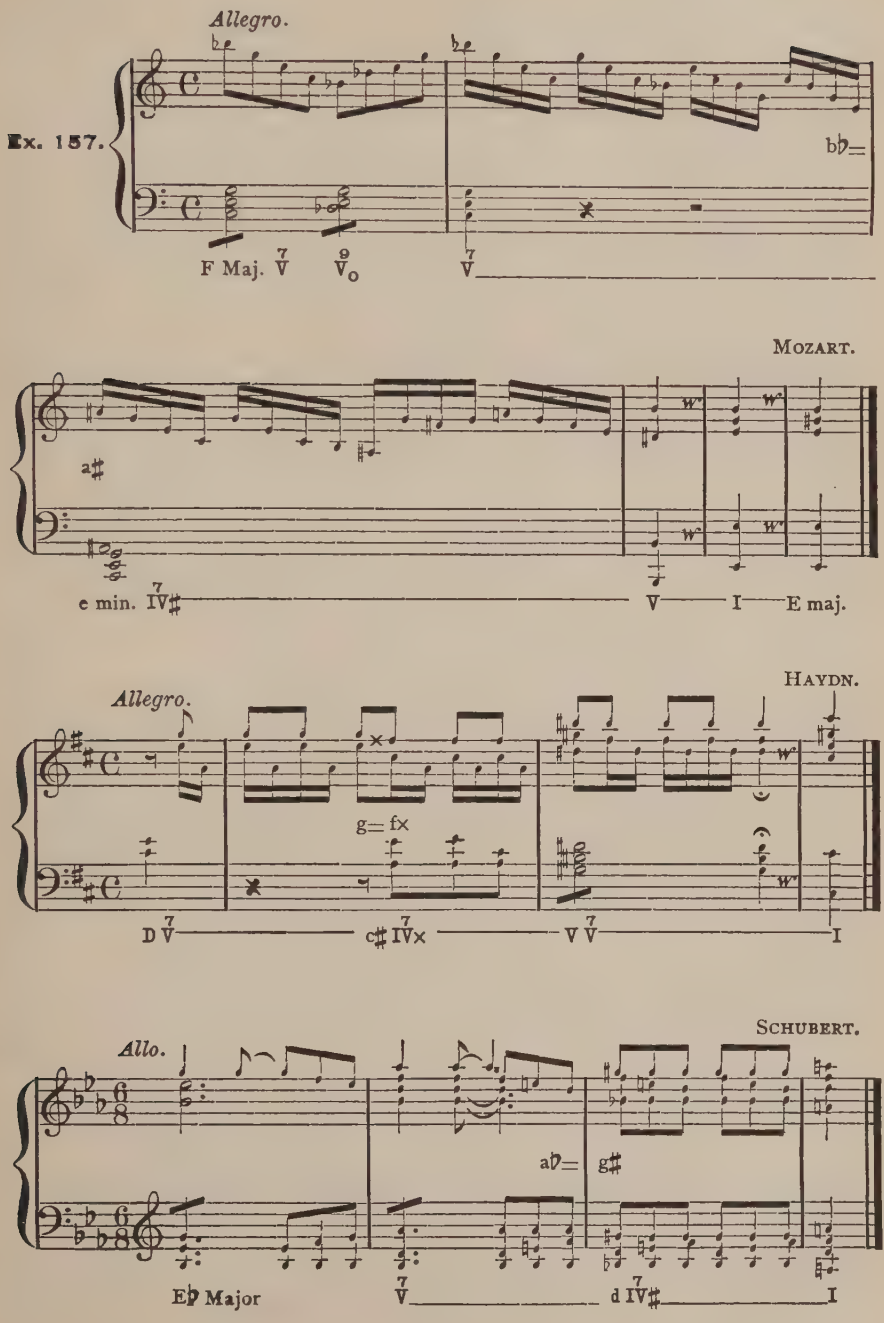
234. The chord of the Dom.-7th is identical *in sound* with a mixed second-class chord of the *minor and major Keys upon the Tonic immediately* (i. e. a half-step) *below the original Tonic.* By means of this enharmonic exchange, a modulation may be made, in other words, into the *next lower Key* (the *Leading-tone becoming a Tonic*). For example, from C (or c) to B (or b); from B (or b) to A♯= B♭ (or b♭). Thus:

Ex. 156.



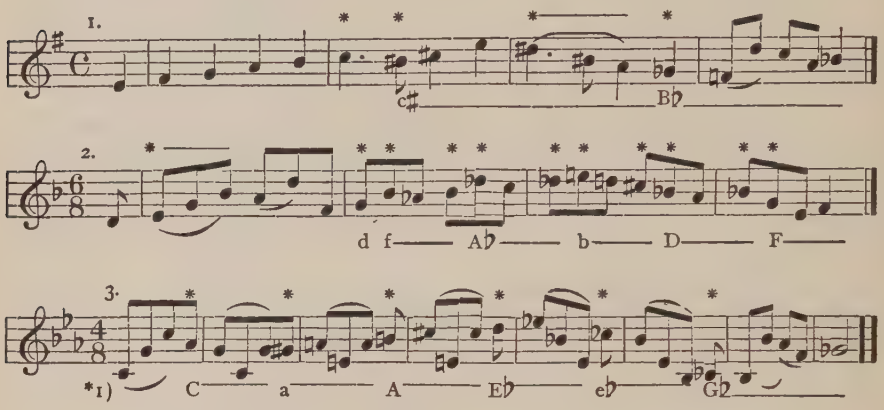
*1) Raised 4th step in *minor* ($^{7}_{IV}$); see 207; Ex. 139, measure 7.—*2) Raised 4th and 2d, and lowered 6th steps, in *Major* (II^{7}); see 206, second clause; Ex. 138, measure 9—11.—*3) Generally, the 7th, or the 7th and 5th, of the Dominant chord are enharmonically changed (see the first measures); but here, owing to the unusual location (or Signatures) of the Keys (B major progressing into A-sharp minor), the 7th remains, and the *lower* intervals are changed.

Additional illustrations:



Lesson 54.

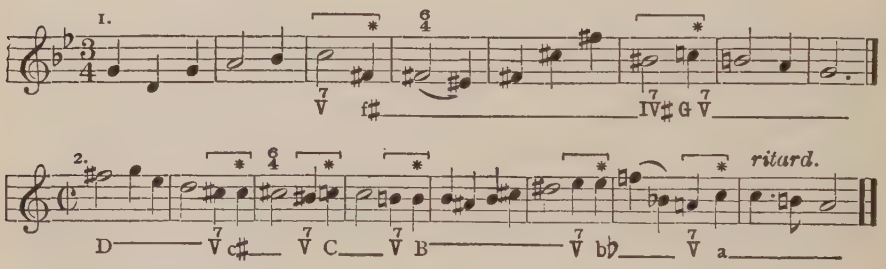
A. Harmonize the following Melodies, introducing a chord of the Dim.-7th at each *, with enharmonic exchange at the following *, as indicated by the Key, and according to Exs. 153 and 154:



*1) The three lower parts together on the Bass-staff, as in Lesson 52, note *5).—

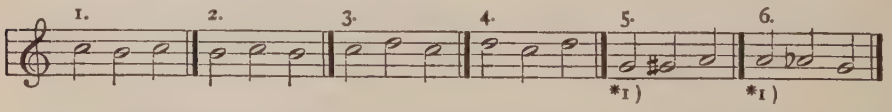
B. Transform the Dom.-7th-chord of *every Key*, enharmonically, in exactly the manner shown in Ex. 156.

C. Harmonize the following Melodies, with an enharmonic change at each *, according to Ex. 156:



SUPPLEMENTARY EXERCISE.

Harmonize each of the following fragments, *in as many keys as may be found to contain the notes*, either as legitimate or as Altered Steps:



*1) An excellent *general* rule for chromatic successions is: to harmonize the *first* tone with some (almost any) *3-tone chord;* and the *second* tone with some *Dominant* harmony.

DIVISION FOUR.

INHARMONIC TONES.

Introductory.

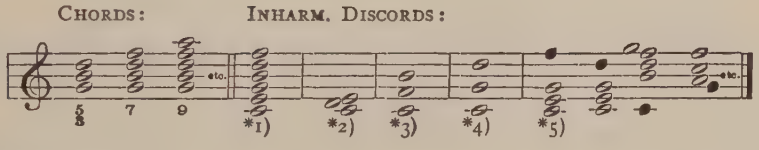
(Mat. Mus. Comp. §§ 325—335).

235. A chord, as cluster of accordant tones, is defined in 26 as the combination of 3, 4 or 5 tones in *thirds*, or in inverted forms reducible to thirds. The simultaneous association of *more than 5* different tones; or the association of even 3 tones in any other interval-relations than those embraced in the definition; or, in a word,

> **the addition of any tone which is *foreign* to the legitimate (harmonic) chord-structure,— results in a so-called INHARMONIC DISCORD.**

For illustration:

Ex. 159.



*1) *Six* different tones can not accord.—*2) Association of two 2ds (c-d and d-e).—*3) Association of two 4ths.—*4) Two 5ths.—*5) These four harmonic bodies would be rendered "Inharmonic" by the addition of the false tones (marked ●), which are foreign to their legitimate chord-form. Review 22—26.

236. The tone which is foreign to the chord is called the *Inharmonic dissonance*, and it is invariably

> **either the upper or lower diatonic *neighbor* of one of the legitimate chord-intervals.**

It is evident that the identity of an Inharmonic dissonance can not be determined until the identity of the *chord* with which it is associated has been clearly established. For example, in the combination c-g-d (Ex. 159, note *4), the *d* will be Inharmonic if the chord can be proven to be the Triad of C (c-e-g); but if it prove to be the Triad of G (g-b-d) then the *c* is the foreign tone. *The identity of the chord will depend, as usual, upon its relations to the adjacent chords, particularly to the one which follows* (Ex. 128, notes, last clause).

237. There are four varieties of the Inharmonic dissonance, distinguished from each other by the manner in which they enter or progress, namely, the ORGAN POINT, the SUSPENSION, the ANTICIPATION and the NEIGHBORING or EMBELLISHING TONE.

CHAPTER XLIV.

The Organ-Point.

238. The natural pre-eminence of the Tonic of a scale renders it admissible *to prolong* (*or sustain*) *that tone*, for a reasonable length of time, *while the other parts continue their harmonic progression*, almost or quite irrespective of the sustained tone.

239. The tone thus held or reiterated during a series of chord-progressions is called an ORGAN-POINT, and it will almost inevitably become Inharmonic from time to time (i. e. at those points where the other voices progress into a chord to which it is foreign). If the sustained tone is the Tonic of its Key, it will be called a TONIC Organ-point.

240. Organ-points appear most naturally and most frequently in the BASS VOICE, but are possible, especially when more brief, in Tenor, Alto, or even Soprano.

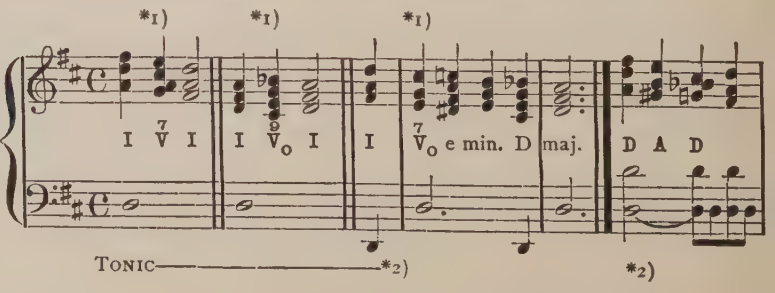
RULE I. The Organ-point should *begin*, *and also end*, *as harmonic interval;* i. e. it should not make a progression during any chord to which it is foreign.

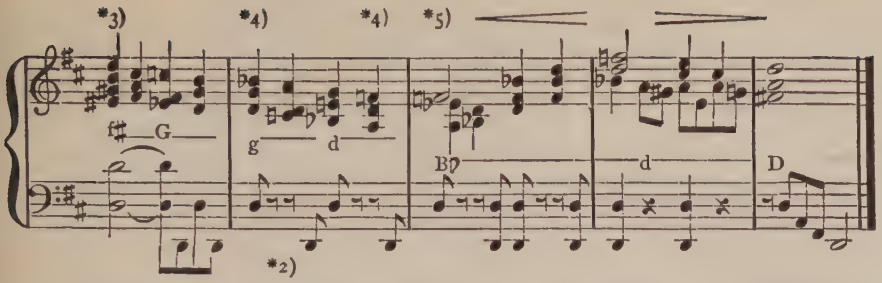
RULE II. It should not be associated with chord-progressions (or Modulations) which render it too obstinately dissonant, or protract its inharmonic condition past 3 or 4 consecutive beats.

RULE III. The other voices may progress freely, and modulate transiently into any *related* Keys, but must all move *as smoothly as possible.*

For illustration (Tonic-organ-point in D major; close harmony):

Ex. 160. D-MAJOR.

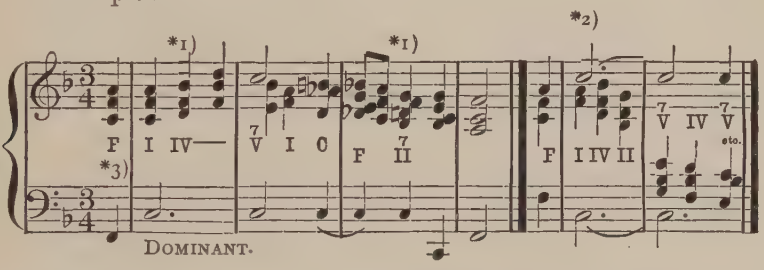




*1) It is natural that the *Dominant* chords of the Key should constitute the simplest means of making the Tonic (as Organ-point) inharmonic.—*2)*2)*2) These measures illustrate different forms in which the Organ-point may be reiterated, instead of being simply held.—*3) The modulation into f-sharp minor, though a next-related Key, is somewhat doubtful, on account of the harsh dissonance involved.—*4) On the contrary, the modulations into g minor (the "Stride") and d minor (the Opposite mode) sound perfectly well, for obvious reasons.—*5) This Dom. chord of B-flat is very harsh, because of its location on the accented beat. It is however admissible, because brief.

241. The DOMINANT, which is barely less important than the Tonic itself, may also be sustained or reiterated as Organ-point, upon the same conditions. For example:

Ex. 161. F-MAJOR.

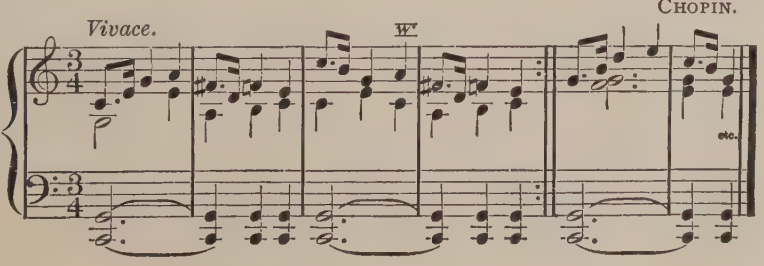


*1) The Dominant-note (as Organ-point) becomes inharmonic upon association with *Subdominant* chords. Comp. Ex. 160, note *1).—*2) Dominant Organ-point in the *Soprano*, as duplication of the Bass.—*3) The first 4 measures might also be f *minor*.

242. Occasionally both the Tonic and Dominant are sustained *together*, as double Organ-point in the perfect 5th, in the lowest voices. This is called the "Pastoral Organ-point." For example:

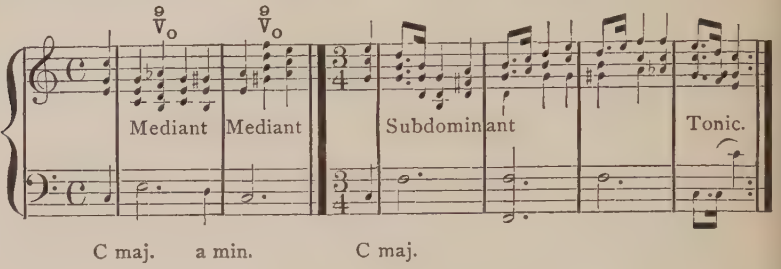
CHOPIN.

Ex. 162. C-MAJOR.



243. The other steps of the scale are not adapted to this mode of treatment, on account of their comparative inferiority. Still, isolated examples of Organ-points upon the MEDIANT (or even the SUBDOMINANT) occur, especially in modern Composition, which are justified by the simplicity of the attendant harmony and modulation. For illustration:

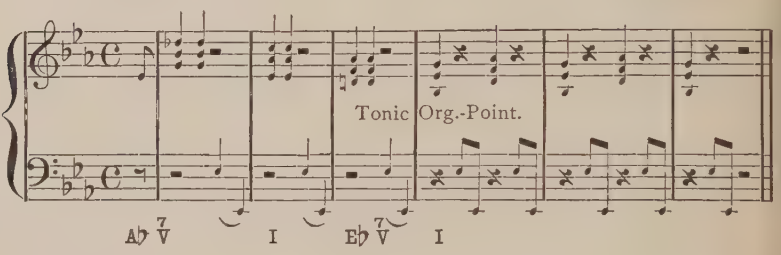
Ex. 163.



Additional illustrations:

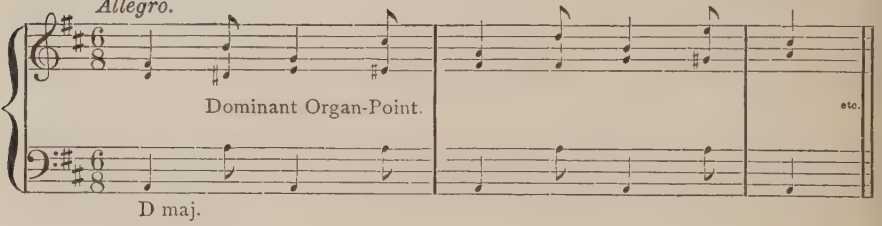
Ex. 164.

Andante. BEETHOVEN.

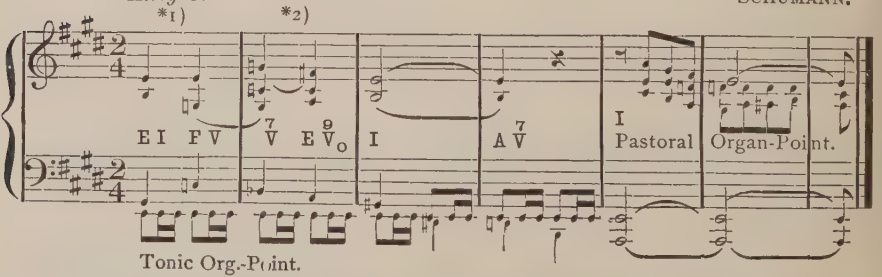


BEETHOVEN.

Allegro.



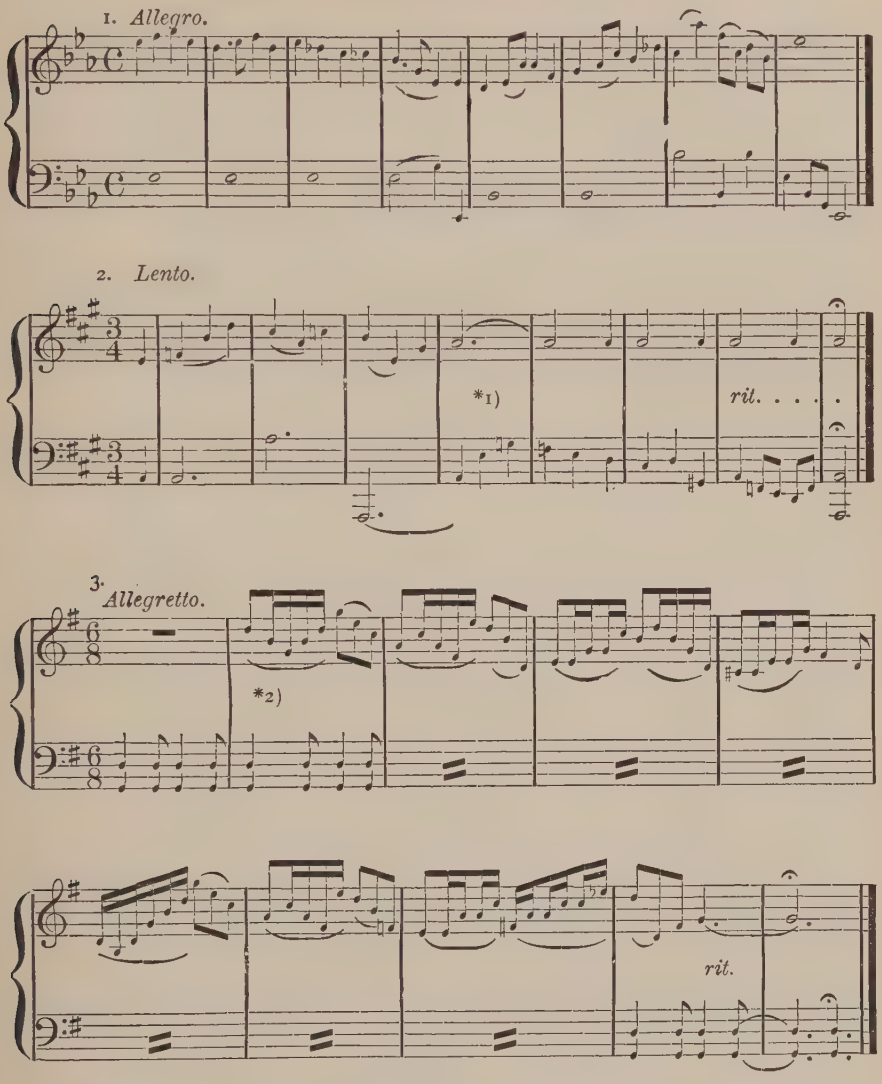
Allegro. SCHUMANN.



*1) In this curious Modulation the Tonic (e) is transformed into a Leading-tone (219).—
*2) Transition from one Dom.-chord into another (222).

Lesson 55.

Complete the following Organ-point Periods, by filling out the inner voices (*in close Harmony*):



*1) Plagal ending. Comp. Lesson 44, note *5).—*2) *One* inner voice will suffice, except ing at the two Cadences, where the Harmony should be fuller.

N.B. In connection with, or instead of, this Lesson, the pupil is to take a number of the 4-measures Phrases from Lessons 9 to 36, and add to them a Tonic or Dominant Organ-point in the lowermost (extra) voice.

CHAPTER XLV.

The Suspension.

(Mat. Mus. Comp. §§ 336—340).

244.

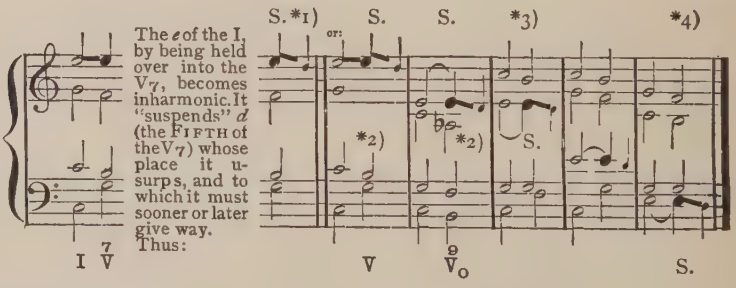
The Suspension is a tone which becomes foreign or inharmonic by being *projected or held over from the preceding chord.*

The tone which is thus sustained past the limits of its own chord, displaces or defers (literally "holds in suspense") the expected legitimate tone of the following chord, hence the appellation "Suspension." The displaced tone is called the "suspended tone," and it must obviously follow immediately, as *resolution of the Suspension.*

245. For this reason it is evident that the prolongation of a tone as Suspension *can only take place in a voice which has a diatonic (step-wise) progression.* And it is also evident that unless the prolonged tone become *foreign* in the following chord, it will not produce the impression of "suspension" or displacement.

For illustration (given the chords "Tonic-Dominant" in C major):

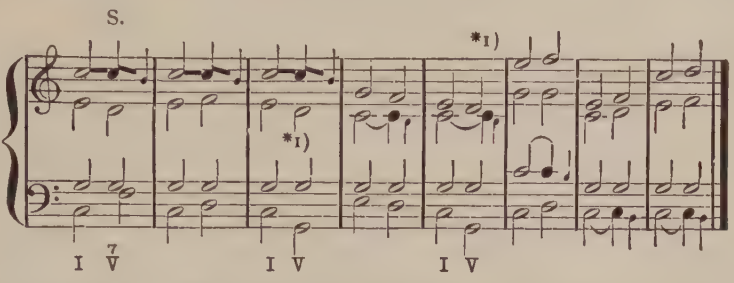
Ex. 165. C-Major and Minor. *5)



*1) As indicated, *d* is the suspended or displaced tone, by progressing into which the Suspension *e* effects its diatonic resolution.—*2)*2) The *form* (Inversion or arrangement) of the chords has no *essential* influence upon the Suspension.—*3) The same Suspension may occur in either inner voice, nearly or quite as well as in Soprano.—*4) In Bass, Suspensions are somewhat rare.—*5) Play each example in *minor*, also.

246. In these same chords, the tone *c* may be held over, as Suspension of *b* (the THIRD of the V or V_7), to which it will diatonically descend, as Resolution. Thus:

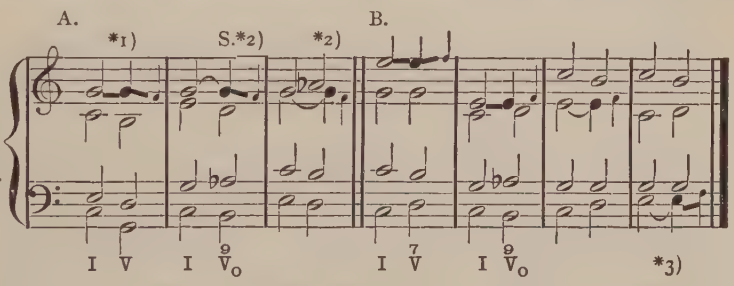
Ex. 166. C-MAJOR AND MINOR.



*1) Comp. Ex. 165, note *2). The effect is substantially the same whether the Dom.-Seventh or the Dom.-*Triad* is employed.

247. If the tone *g* be held over from the I into the V or V_7, *it will not become inharmonic*, because it is the common-tone. But if held over into the V^9, the *g* will be a Suspension. See Ex 167 A. And the tone *e* can be sustained (as in Ex. 165), as Suspension of *f* (the SEVENTH of the V_7), in which case it will resolve diatonically *upward*. See Ex. 167 B.

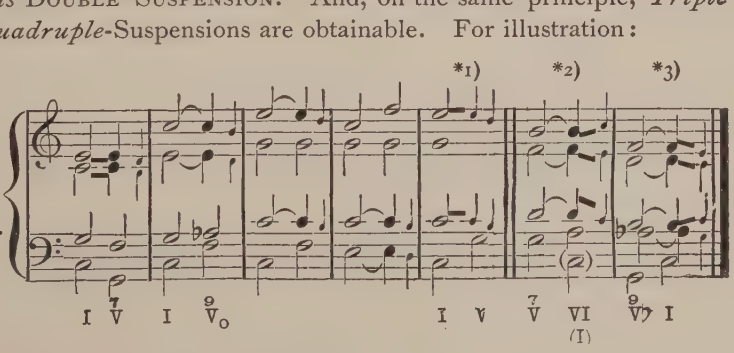
Ex. 167. C-MAJOR AND MINOR.



*1) G is the common-tone between I and V or V^7, and does not produce the effect of a Suspension.—*2) In connection with the Dom.-*Ninth*, however, the g becomes inharmonic.—*3) See Ex. 165, note *4).

248. The tones *c* and *e*, in the same chord-progression, may *both be sustained*, *as* DOUBLE-SUSPENSION. And, on the same principle, *Triple* and even *Quadruple*-Suspensions are obtainable. For illustration:

Ex. 168. C-MAJOR AND MINOR.



*1) If the *c* and *e* are held over into the *Triad* V (instead of the V_7 or V_9) they do not become inharmonic, and therefore do not create the distinct impression of a Double-suspension, though virtually they are nothing else. See Ex. 88, numbers 1, 3, 4, 5.—*2) Triple-suspension.—*3) Quadruple-suspension.

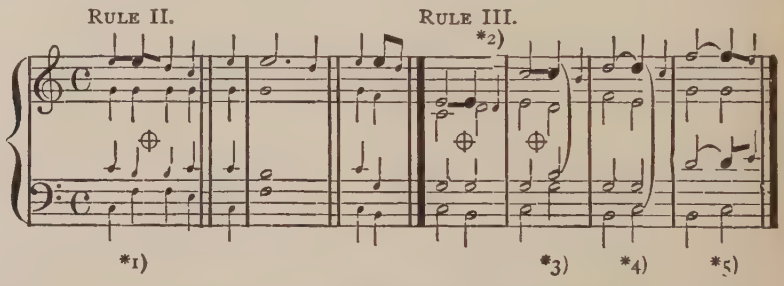
249.

RULE I. ***Any*** **interval of** ***any*** **chord in** ***any*** **voice which progresses DIATONICALLY (downward or upward) can be sustained (or repeated) during the change of chord, as Suspension. See 245.**

RULE II. The Suspension usually appears on an ACCENTED beat of the measure; or, if not, it must always be at least *more accented than its resolution*. With this exception, the *length* (or accentuation) of the Susp. is optional.

RULE III. The Suspension and the suspended-tone (its resolving-tone) should not, as a general principle, *appear simultaneously* (in different voices). This however only applies to those cases in which the suspended-tone is an *inferior step* of the scale, the duplication of which would be avoided in any case. For illustration:

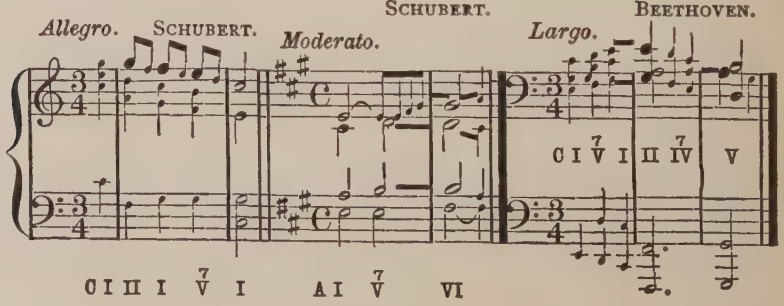
Ex. 169.



*1) Suspension on the (unaccented) 2d beat, and resolved on the (accented) 3d beat.—*2) Palpably wrong to anticipate the resolution of the Suspension in Soprano, by the simultaneous *d* in Alto. This example would obviously be correct, however, if the Suspension (e) were to *ascend* (resolve) into *f*.—*3) Equivalent to a doubled Leading-tone.—*4) Good, because the duplication involved is that of the *Tonic* (c).—*5) If there is any doubt about the case, simply suspend the tone in *both parts* (as here the *e* in Soprano and Tenor).

Additional illustrations:

Ex. 170.



Lesson 56.

Write out the following chord-progressions, in 4-part open harmony, introducing a Suspension on the accented beat; at first a single Suspension in each adapted voice, successively; then Double, and Triple-suspensions if practicable. The *Rhythm*, and (unless indicated) the *Inversions* are optional:

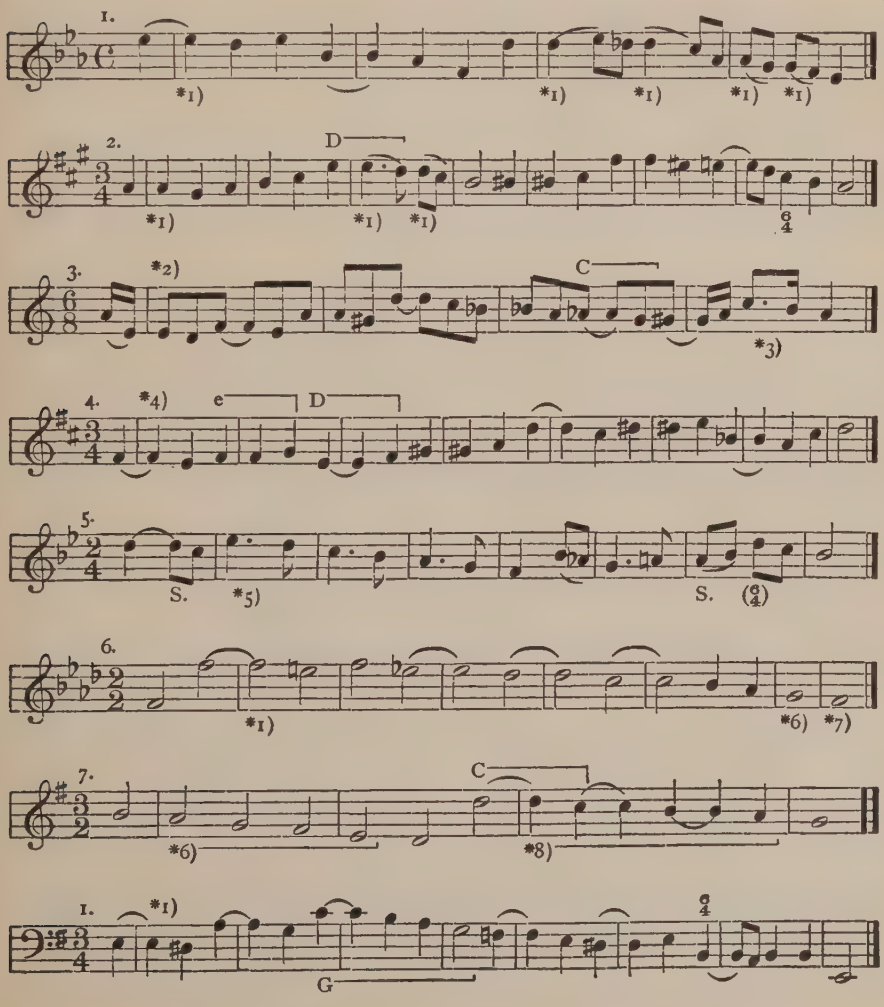
G major: I | $\overset{7}{V}$ ‖ D minor: I | $\overset{9}{V_0}$ ‖ F major: $\overset{7}{V}$ | I ‖ B minor: $\overset{9}{V_0}$ | I ‖

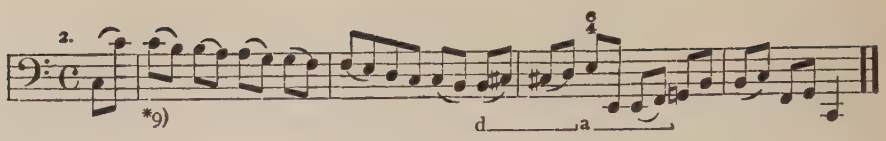
E♭ major: $\overset{9}{V}$ | I ‖ C♯ minor: $\overset{7}{V}$ | VI ‖ A major: IV | I_2 ‖ C minor: IV | V ‖

D♭ major II_1 | I_2 ‖

Lesson 57.

Harmonize the following Melodies and Basses, with reference to the subjoined explanatory notes:





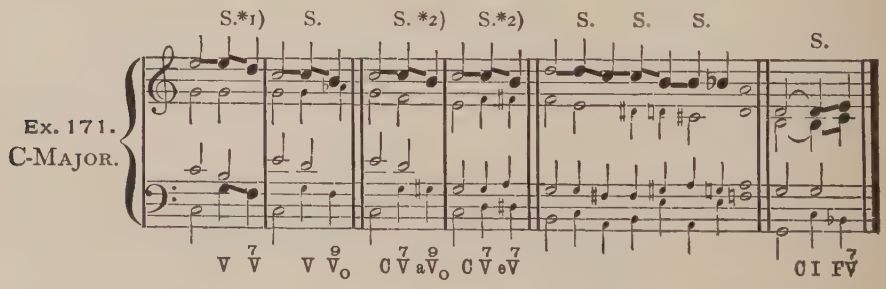
*1) Every note which is thus *repeated* (whether tied or re-struck) may be treated as a Suspension, *by harmonizing the* FOLLOWING *note in its stead*,—exactly as in Exs. 165—167.—*2) Suspension on the 1st and 4th beats of each measure.—*3) The *dot* is to be a Suspension. Comp. note *5).—*4) In this Melody, *Double*-suspensions may occasionally be used to good effect.—*5) Each dot, in this melody, is to be a Suspension, as if the notation were as in the 1st measure.—*6) A Suspension in the Alto.—*7) Suspension in Tenor.—*8) Double-suspensions in Soprano and Alto.—*9) Every repeated note a Suspension. Use close harmony.

CHAPTER XLVI.

Irregular Resolutions of the Suspension.

(Mat. Mus. Comp. §§ 341—344).

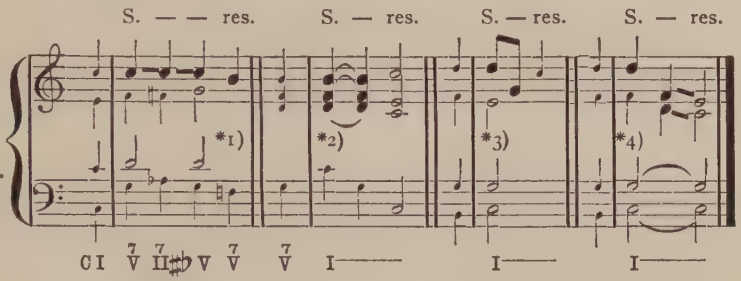
250. Simultaneously with the diatonic progression of the Suspension into its resolving-tone, *the other voices may make any* SMOOTH *progression which does not interfere with the Resolution* of the Suspension. This progression of the other parts, at the moment when the Suspension is resolving itself, may be limited to a simple alteration of the form or Inversion of the *same* chord; or it may effect a change of chord, or even of Key. For illustration:



*1) While the Suspension (*e*) is resolving to *d*, the Bass progresses in such a manner as to alter the Dom.-*Triad* to a Dom.-*Seventh;* in the next measure, to a Dom.-*Ninth*.—*2) During the resolution of the Suspension (*c*) a Modulation is made, in some other voice or voices

251. Other Licences, such as the *prolongation* of the Suspension; the *indirect resolution* (through an intermediate tone of the same chord); and the *exchange* of Double-suspensions, are possible, but of comparatively rare occurrence. For example:

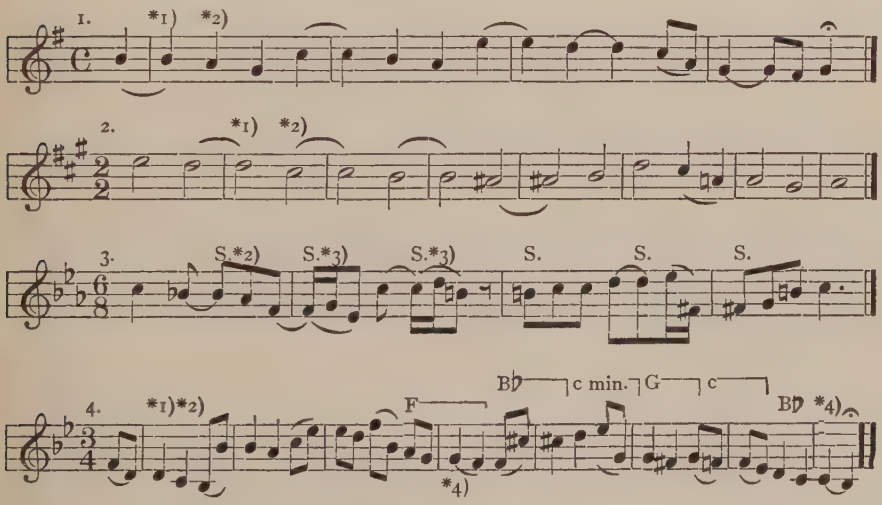
Ex. 172. C-Major and Minor.



*1) The Suspension (*c*) in Soprano is prolonged for 3 beats, before its resolution into *b* takes place.—*2) All 3 Suspensions are prolonged, while the Bass progresses.—*3) The Suspension (*d*) is resolved indirectly to *c* through the lower *g*, which is a part of the same (resolving) chord.—*4) The Double-suspension (*d* and *f*) changes voices.

Lesson 58.

Harmonize the following Melodies, with reference to the subjoined explanatory notes:



*1) *Each repeated note*, whether tied or re-struck, is to be a Suspension, as in the preceding Lesson; i. e. the *following* tone is harmonized in its place.—*2) During the resolution of each Suspension, one or more of the other voices may progress, as in Ex. 171; i. e. the following tone may be harmonized independently.—*3) The second 16th-note is simply interposed, as in Ex. 172, note *3).—*4) Triple-suspension.

CHAPTER XLVII.

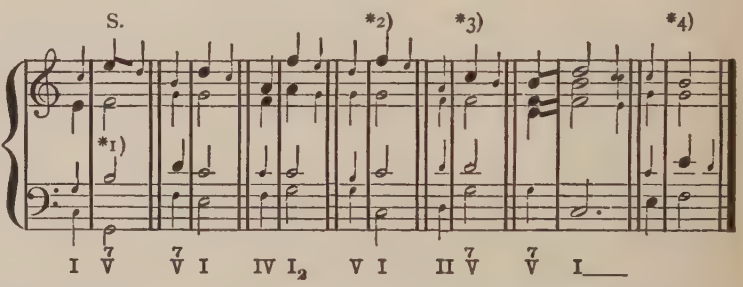
Irregular Introduction of the Suspension.

(Mat. Mus. Comp. §§ 345—347).

252. A Suspension is not obliged to appear as *repetition or prolongation* of the preceding tone, in the same voice, but may enter with any reasonable skip (best from below), as "Free Suspension." As the Suspension must under all circumstances be an inharmonic tone which belongs to the foregoing chord, it is necessary to observe the following

RULE. The original tone (the preparation of the Suspension) must either occur in some other voice, in the preceding chord, or must be *understood*, as possible Interval of the latter. For example:

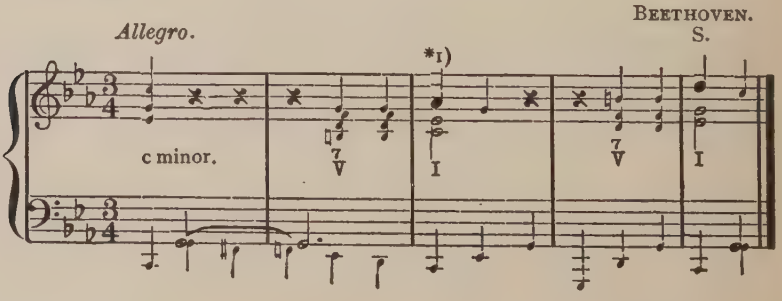
Ex. 173. C-MAJOR AND MINOR. *5)

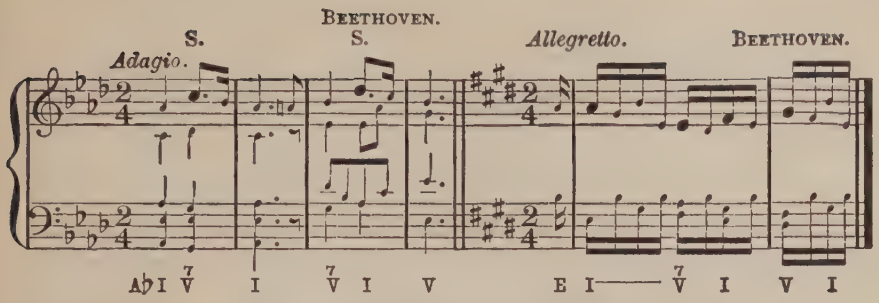


*1) The *e* in Soprano, although it is not repeated or tied over from the preceding beat (as in Ex. 165), is a Suspension, prepared by the foregoing *e* in Alto.—*2) The *f* in Soprano is a Suspension, because its preparation is *understood* as possible Seventh of the chord before.—*3) A possible 7th of the preceding II.—*4) The "Free Suspension" never sounds as well in a middle or lower voice, as in Soprano.—*5) Play each example in minor also.

Additional illustrations:

Ex. 174.

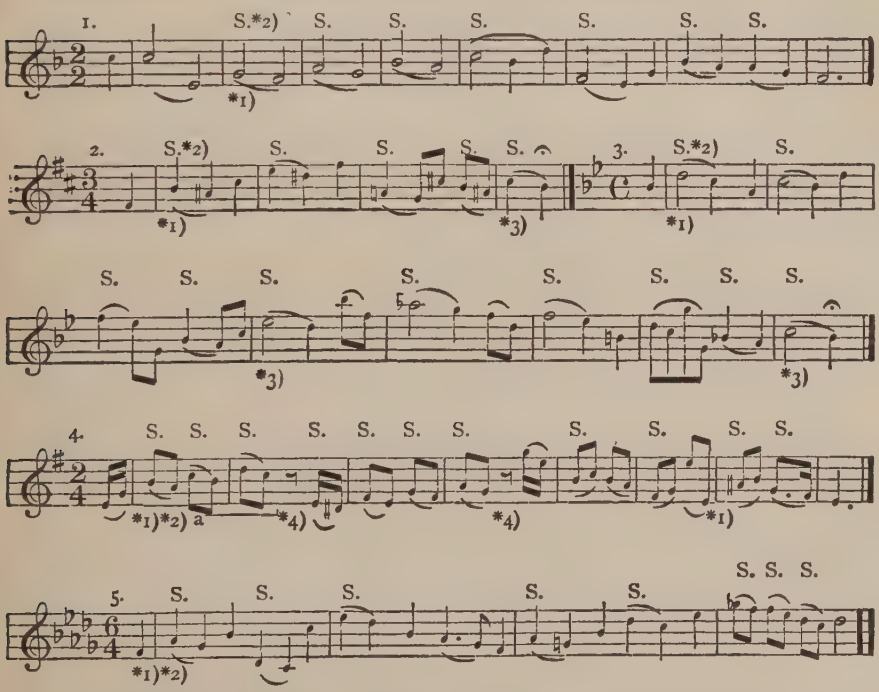




*1) The a-flat in Soprano is an understood Ninth of the foregoing chord.

Lesson 59.

Harmonize the following Melodies, with reference to the subjoined notes:



*1) The accented note becomes a Suspension by harmonizing the *following* note in its place, as usual. *But the preceding (unaccented) tone must be harmonized with some chord which contains, or might contain, the Suspension!* See 252, Rule.—*2) An additional (Double) Suspension, in Alto or Tenor, may in many places accompany the Soprano-Suspension.—*3) Triple-Suspension.—*4) All the voices may rest together.

CHAPTER XLVIII.

The Anticipation.

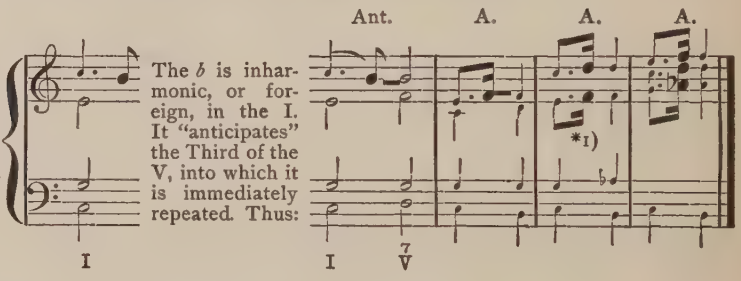
(Mat. Mus. Comp. §§ 348—357).

253. The Anticipation is a tone which appears in advance of the chord and beat to which it properly belongs. It may appear in any part, but always sounds most natural IN THE SOPRANO. Though possible at any point in the course of a Phrase, it is perhaps most effective *at the Cadence.*

RULE. The Anticipation invariably appears on an UNACCENTED beat, or unaccented fraction of its beat. *The more brief it is*, the less danger there will be of a misapprehension of the Harmony and Rhythm. Comp. 249, Rule 2.

For illustration (given the chords "Tonic-Dominant" in C):

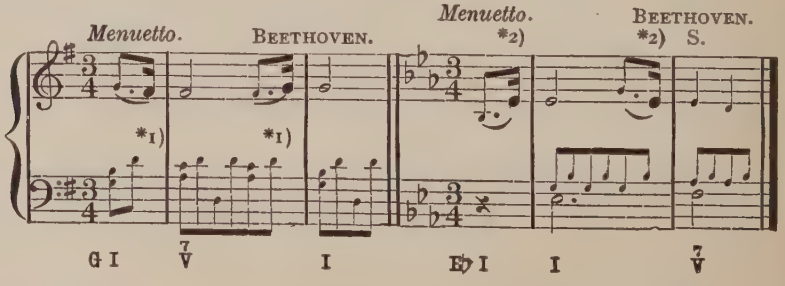
Ex. 175. C-MAJOR AND MINOR.

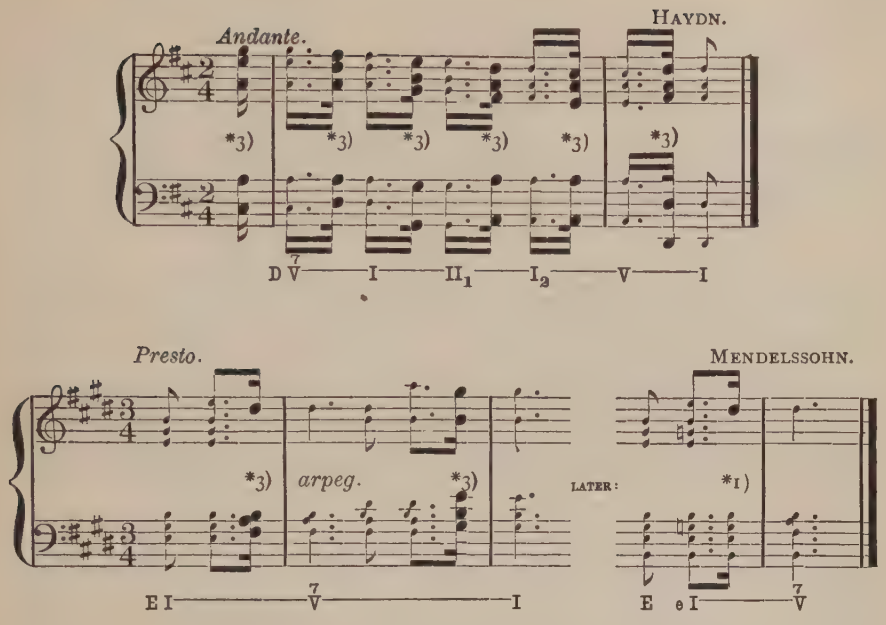


*1) *Double*-Anticipation. In the next measure, *Triple.*

254. The Anticipation is usually, *but not necessarily*, an inharmonic (foreign) tone. Being in reality only a modification of the *Rhythm*, its relations to the chord-progression are comparatively immaterial. It is even possible to anticipate the whole chord, *in all of the voices.* The violation of 39, Rule V, which this occasions, is generally counteracted by making the anticipating chord very brief. For example:

Ex. 176.

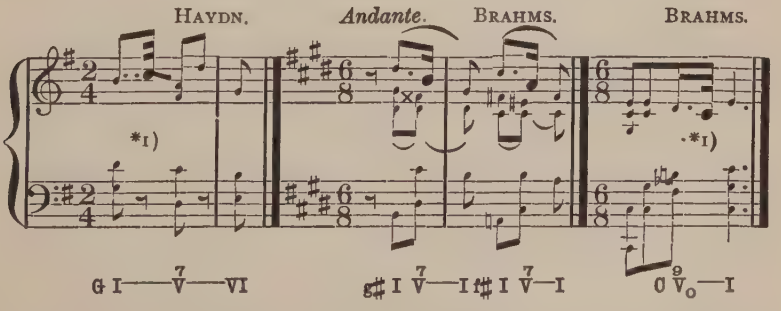




*1) An inharmonic Anticipation.—*2) An Anticipation which is not foreign to the chord in which it occurs; but nevertheless an "anticipation."—*3) Anticipating-*chords*.

255. The "Free" or "Irregular" Anticipation is one which, instead of *remaining upon the note* which it anticipates, *progresses* into another tone, usually with a *skip downward*. The anticipated note should appear in some other voice, in the following chord, or it must be *understood*, as possible Interval of the latter. See 252, Rule, of which this is but the reverse. For illustration:

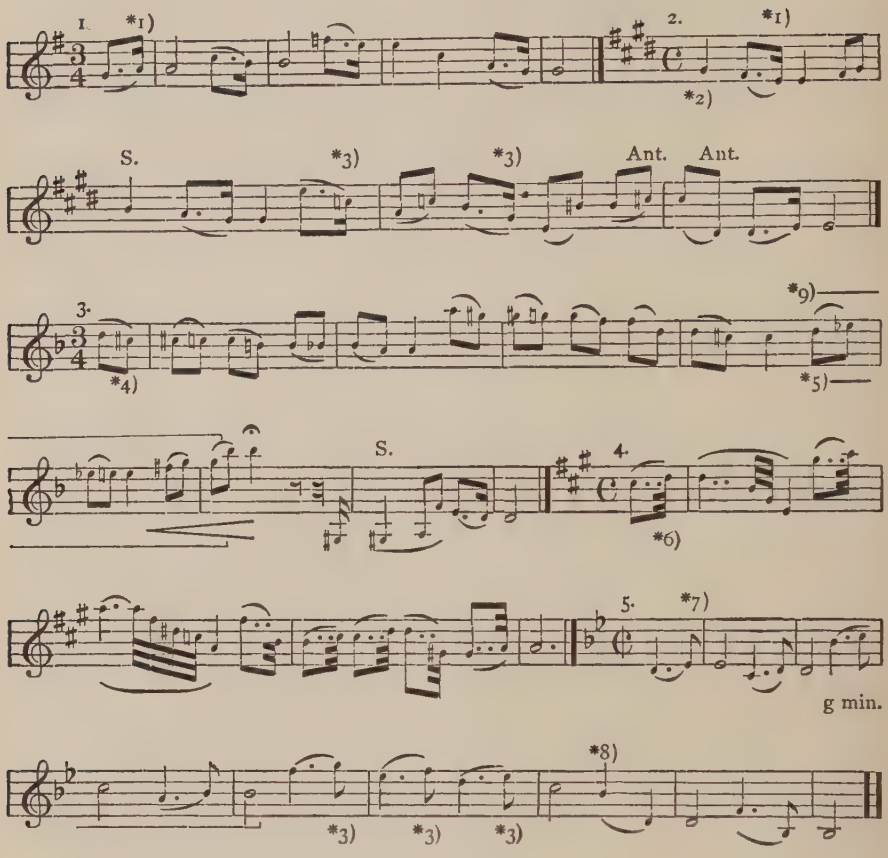
Ex. 177.



*1) The **c** in Soprano is an Anticipation of c in the following chord (Tenor). The irregularity consists in its progressing with a leap.

Lesson 60.

Harmonize the following Melodies, with reference to the subjoined notes:



*1) Each 𝅗𝅥 is to be an Anticipation; i. e. it is not harmonized at all (see Ex. 175); but it may be accompanied by one or both inner voices, as Double or Triple-Anticipation.—*2) With Tonic Organ-point through 3 measures.—*3) Free Anticipation (255).—*4) Anticipation-*chord* (all 4 parts) at the end of each slur, throughout.—*5) Tonic Organ-point in Tenor.—*6) Each isolated 32d-note an Anticipation-chord.—*7) Each 𝅘𝅥𝅯 an Anticipation.—*8) The Altered IV of B-flat.—*9) Successive 6ths (119).

CHAPTER XLIX.

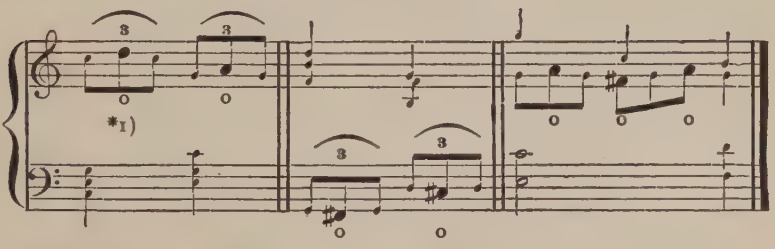
The Neighboring-Note.

(Mat. Mus. Comp. §§ 360—362).

256. As stated in 236 (which review) every inharmonic tone is the upper or lower diatonic *neighbor* of one of the legitimate chord-tones. The special designation "Neighboring-note" has been adopted by the author to indicate that *simple form of melodic embellishment in which*

either the upper or lower inharmonic neighbor *alternates briefly* with the principal (i. e. harmonic) tone.

Ex. 178.



*1) The "Neighboring-note" is everywhere indicated by o. The harmonic Interval which it embellishes is called the "Principal tone."

257. This alternation of harmonic and adjacent inharmonic tones may be applied to *any* interval of *any* chord, and in *any voice*, subject only to the general conditions of Rhythm. It gives rise to a number of different melodic groups, prominent among which are such conventional "Grace-notes" as the Trill (long or short), the Mordent, the Turn, and other familiar Embellishments, but embracing also a great variety of special ornamental figures, whose importance and efficiency in enriching, adorning, and enlivening the primary harmonies can hardly be over-estimated.

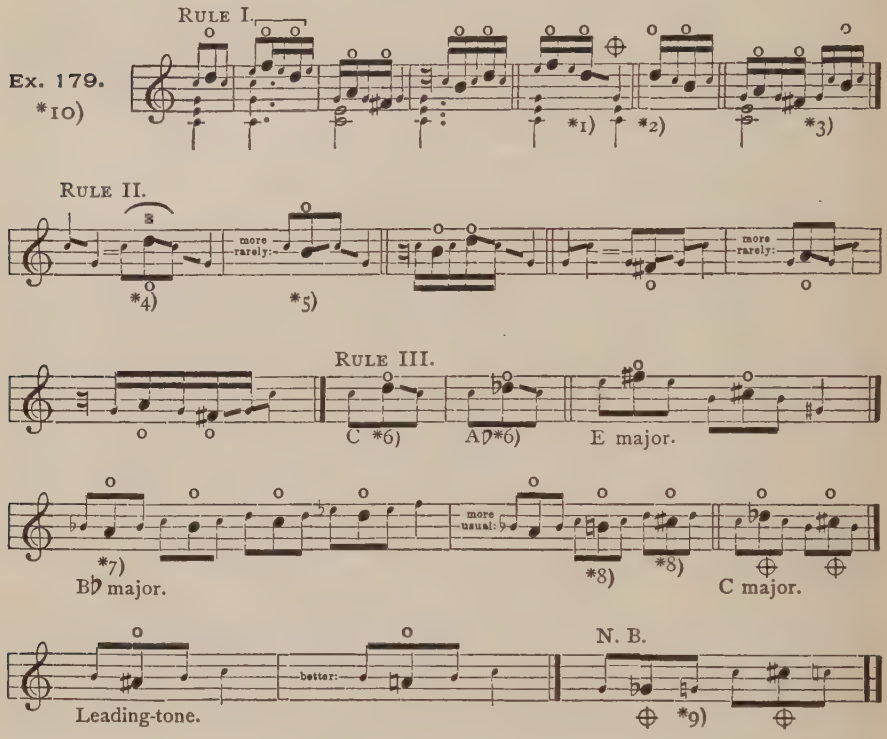
258. RULE I. The Neighboring-note enters from (i. e. follows) its own principal tone, and also *returns to the latter;* i. e. the group begins and ends with the same harmonic tone.

RULE II. The *upper* Neighboring-note is generally used when the direction of the melody, into the next tone, is *downward*; and, inversely, the *lower* Neighbor when the direction is *upward*. In other words, the Neighb.-tone should lie *opposite* the next essential melody-tone (Ex. 179).

The *accented* Neighboring-note is more *prominent* than the unaccented

one; otherwise the rhythmic location of a Neighboring-note (*on* or *between* the beats) is immaterial. (Comp. 262).

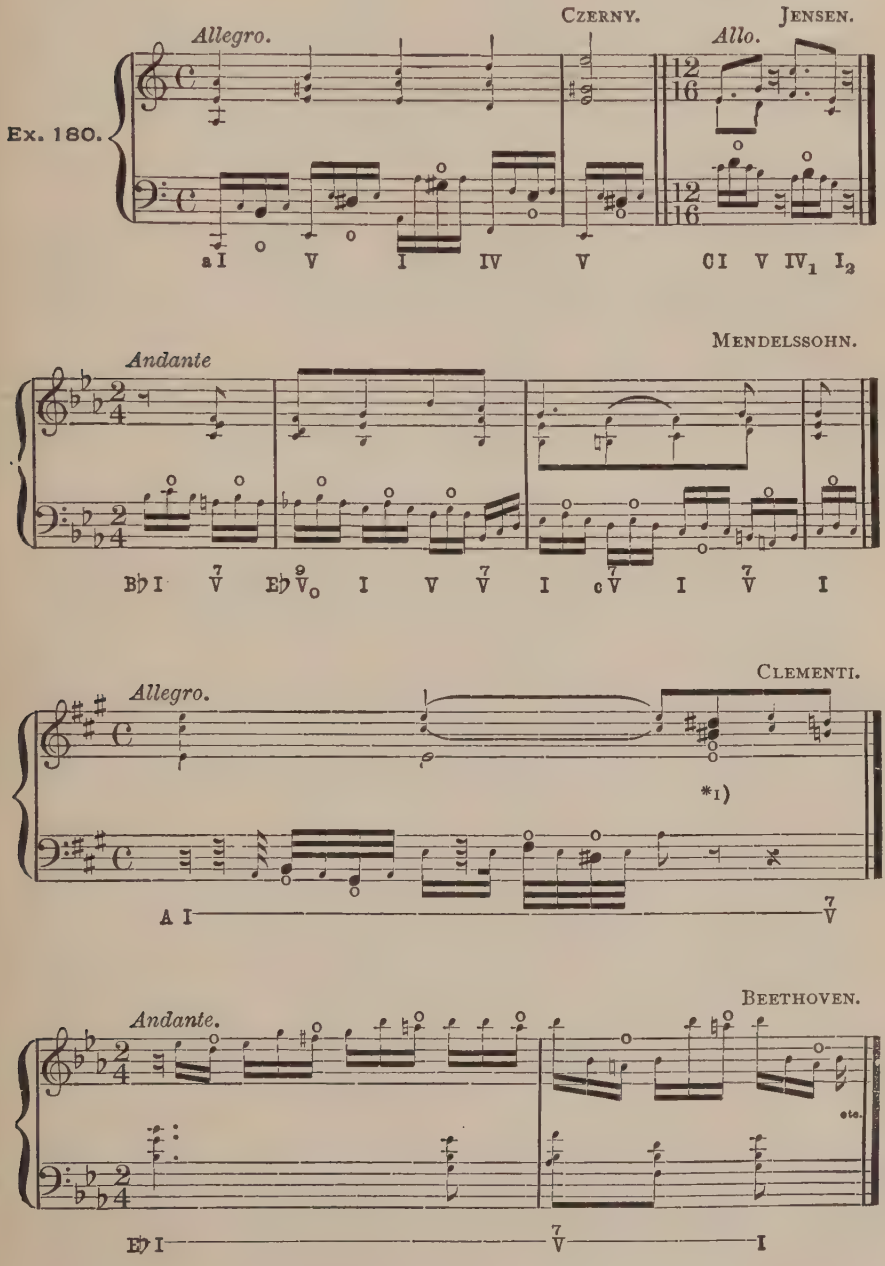
RULE III. The upper Neighboring-note should *agree with the scale represented by the momentary chord* (or, very often with that of the *next* beat). The lower neighbor may also agree with the scale, but it is *usually the* HALF-STEP. The Leading-tone, however, is almost invariably embellished, both above and below, in accordance with its scale. For example:



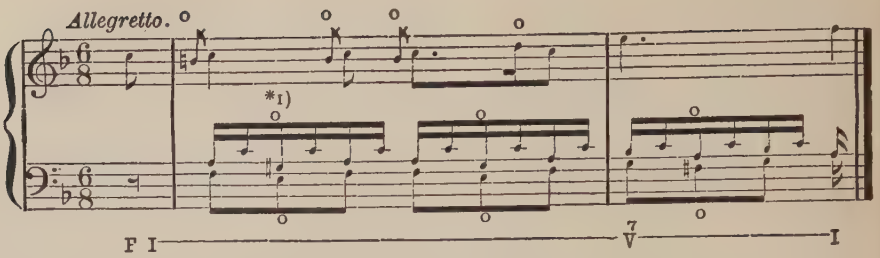
*1) The neighboring-note *d* must return to *e*, its principal tone.—*2) The *unprepared* Neighboring-note will be explained in a later chapter.—*3) The embellishing group may be thus extended by any leaps which conform to the chord.—*4) The *upper* Neighboring-note, before a *descending* progression.—*5) The lower Neighboring-note is less smooth, in this connection.—*6) Whether the upper Neighboring-note is to be a whole-step or half-step, depends upon the momentary Key.—*7) These lower Neighboring-notes all agree with the scale (B-flat major, in this case).—*8) A half-step, contrary to the scale; this is more modern and graceful.—*9) The neighboring-notes must *invariably* represent the next higher or lower *letter*.—*10) C major; but also valid for c minor, with e-flat and a-flat.

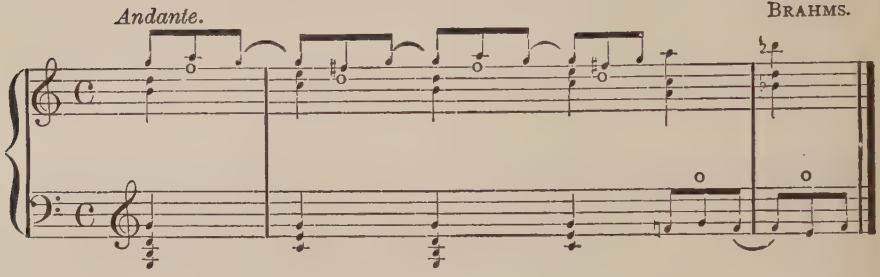
259. These embellishing tones may appear simultaneously in two or more parts, as *Double* or *Triple* Neighboring-notes; or even in all the parts,

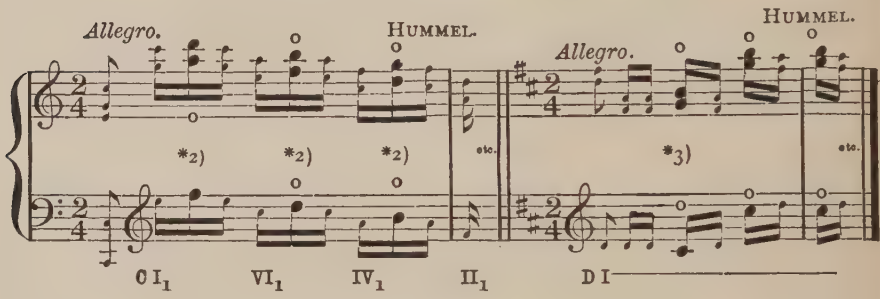
as "*Neighboring-chord*" (in analogy to 248; Ex. 175, note *1); Ex. 176, note *3). These and other forms are exhibited in the following example:



BEETHOVEN.

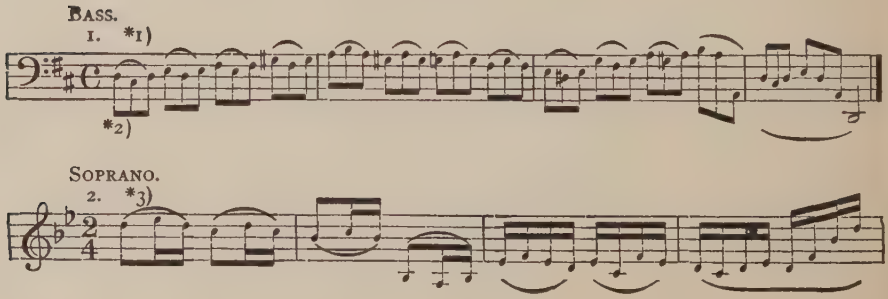


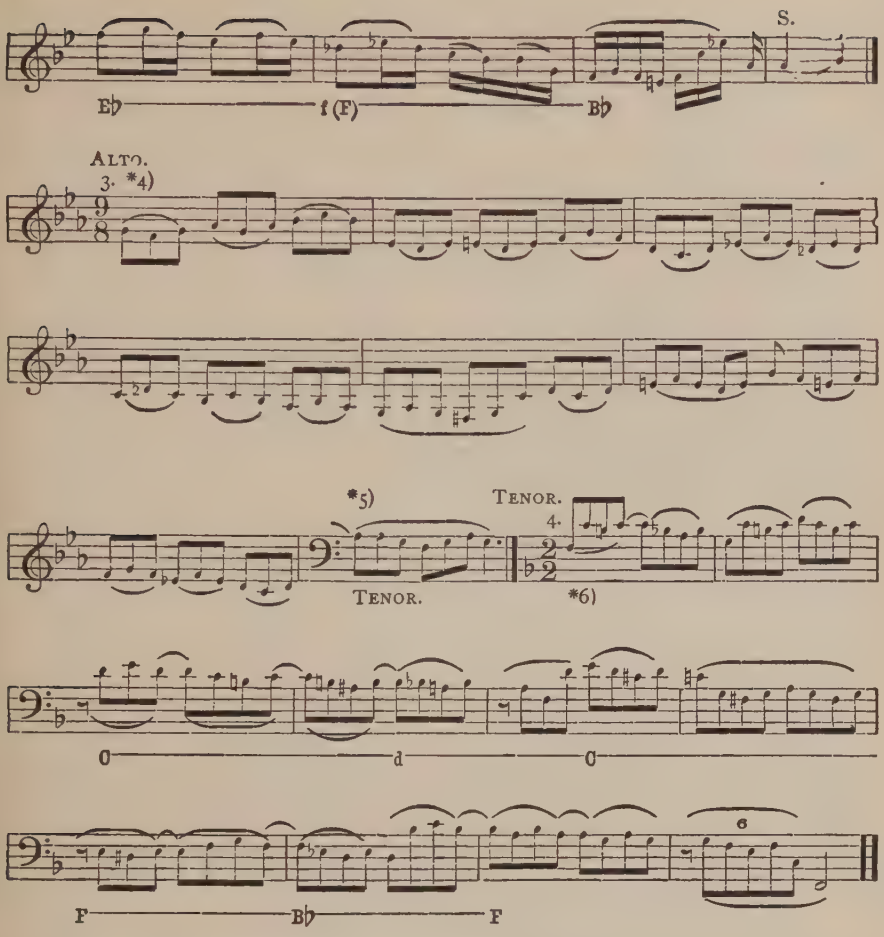




*1) Double Neighboring-note.—*2) *Neighboring-chords;* they are *too brief* to be essential.—*3) Accented Neighboring-chords.

Lesson 61.





*1) Add three upper parts to this "Running Bass," in close Harmony—*2) *One melody-tone (and chord) to* EACH SLUR, *strictly*. The Neighboring-notes are easily discernible.—*3) Ordinary open Harmony. See note *2).—*4) Add Soprano, Tenor and Bass to this Running Alto. See note *2).—*5) At this point the Alto pauses, and the Tenor takes up the Embellishment.—*6) Add Soprano, Alto and Bass to this Running Tenor. See note *2).

CHAPTER L.

The Passing-note.

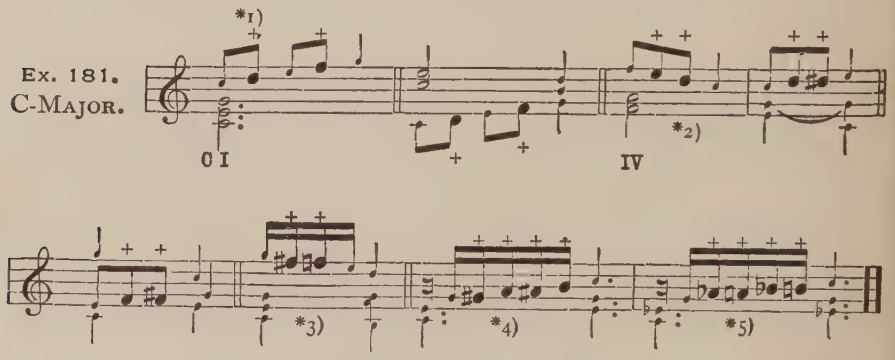
(Mat. Mus. Comp. §§ 363—369).

260. The Passing-note is an inharmonic tone which is touched in "passing" step-wise *from one chord-tone to another*. Hence it serves to connect *two different* chord-tones. (Comp. 258, Rule I, for the distinction between *Neighboring*-note and *Passing*-note).

261. *a.* This connection is almost always made DIATONICALLY, along the momentary scale; but occasionally it is also made *chromatically*, especially in *ascending* succession.

b. Two, or even more, Passing-notes may occur in immediate succession if they follow each other *stepwise* in the *same direction*. This will depend upon the size of the harmonic interval to be "filled out," and also upon the choice of diatonic or chromatic Passing-notes. For example:

Ex. 181.
C-MAJOR.

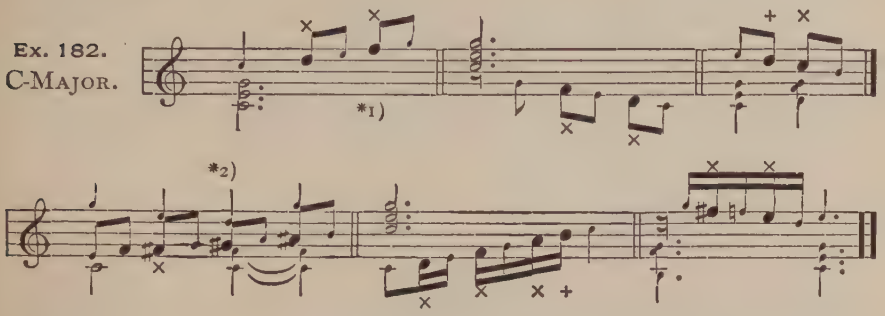


*1) The Passing-notes are indicated by +.—*2) Two Passing-notes in succession.—*3) Descending chromatic tones are generally written with flats, excepting the one immediately below the Dominant of the momentary Key, which is written, as here, as raised 4th step (in C, as f-sharp).—*4) Four chromatic Passing-notes in succession.—*5) C *minor;* the change of notation in the minor mode is significant.

262. In the above example, the Passing-notes are all UNACCENTED, i. e. they stand *between* the beats, as light fractions. But they may also occur at the *beginning* of the beat, as ACCENTED Passing-notes, and are then

usually much more effective than the former, because more conspicuous. For illustration:

Ex. 182. C-MAJOR.



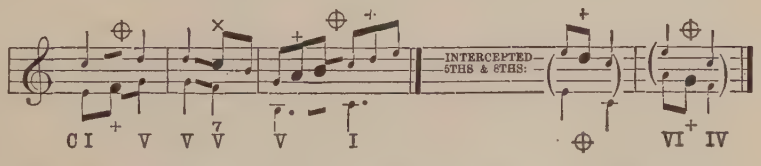
*1) The Accented Passing-note is indicated by ×.—*2) These measures are also valid for C *minor* (with e-flat and a-flat) excepting this beat, which would read a-flat instead of g-sharp.

263. RULE I. Unaccented Passing-notes are admissible and effective in *any* voice. Accented Passing-notes are best in Soprano; in the inner voices, or in Bass, they are apt to obscure the harmonic sense, and must therefore be carefully tested (by ear).

RULE II. Passing notes usually necessitate the subdivision of their beat, and are therefore subject to the rule of rhythm given in 38, viz., the *light* beats must be broken first, so that the *unbroken* beats (if any remain unsubdivided) are the *heavier* ones of the measure.

RULE III. Successive (parallel) perfect 5ths or 8ths, which may result from the insertion of Passing-notes, will only be objectionable in case the *second* 5th or 8ve is *perfect and harmonic*. For example:

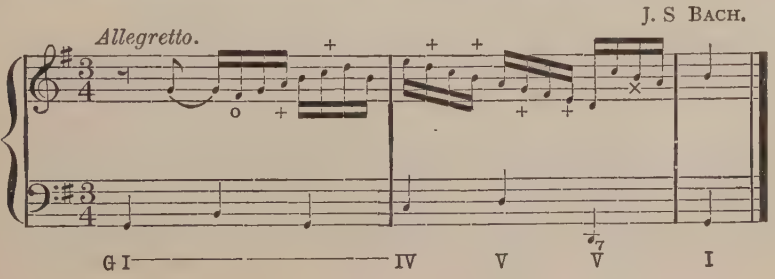
Ex. 183.



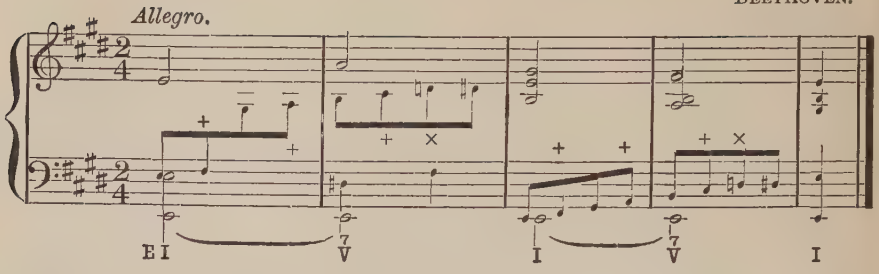
A few of the very numerous forms of Embellishment with Passing-notes, Accented and Unaccented, are exhibited in the following example:

J. S BACH.

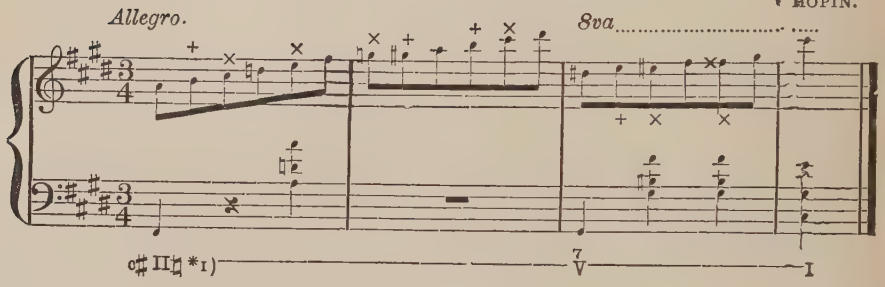
Ex. 184.



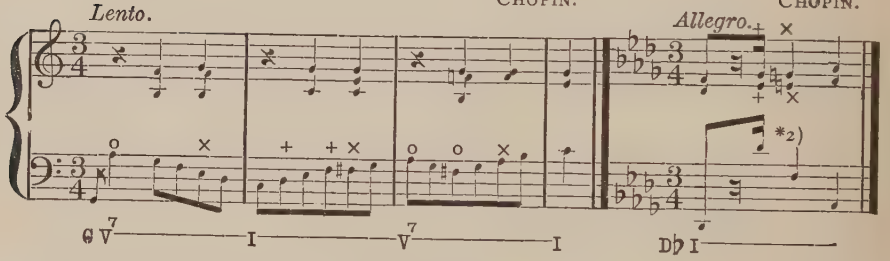
BEETHOVEN.



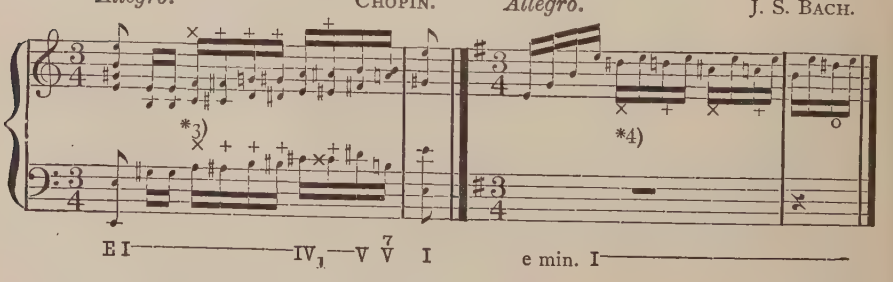
CHOPIN.

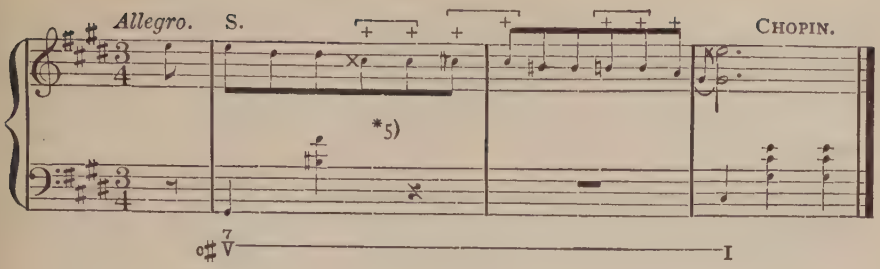


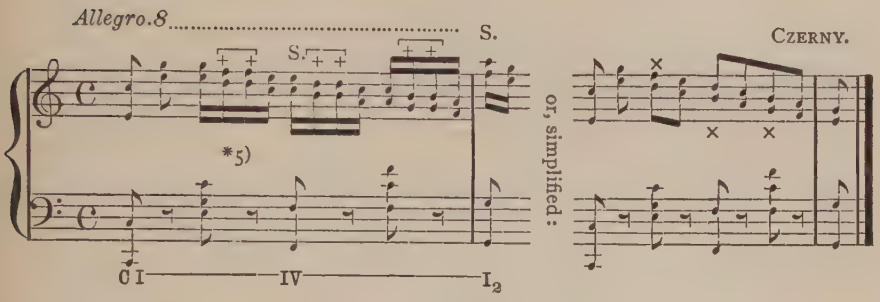
CHOPIN. CHOPIN.



CHOPIN. J. S. BACH.







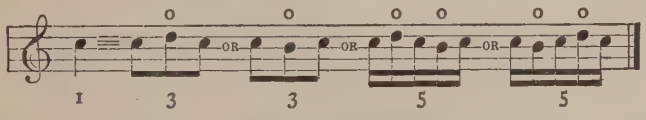
*1) The Lowered 2d step (d) of c-sharp minor.—*2) Double Passing-notes.—*3) *Passing-chords.* In such rapid tempo they are *too brief* to be essential. Comp. 180, note *2).—*4) The descending chromatic tones are Passing-notes, *intercepted* by the reiterated e.—*5) *Repeated* Passing-notes.

Lesson 62.

Elaborate the following melodic sketches as "Running Soprano," in a *uniform rhythm* of first 2 notes, then 3 notes, 4 notes or 6 notes to *each* beat, as indicated; using Passing-notes unaccented and (occasionally) accented, Neighboring-notes, and (when absolutely unavoidable Harmonic tones. The lower voices need not be added.

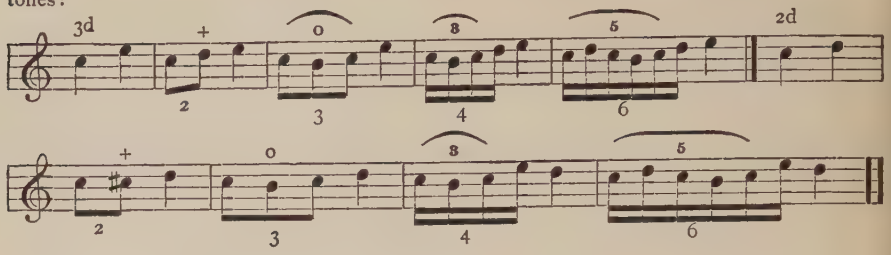
DIRECTIONS: The choice of intermediate embellishing notes depends (1) on the *size of the interval* from one essential tone to the next, and (2) on the *number of tones* to be used in a beat. If the space is just the right size for diatonic or (ascending) chromatic *Passing-notes*, these are to be taken in preference to any other form of embellishment. If the space is too small, *Neighboring-notes* will be necessary. If the space is too large (or in any respect inconvenient) *Harmonic* tones, of the momentary chord, may be used.

By means of *Neighboring-notes*, any single tone develops into a group of 3 or 5 (7, 9) tones

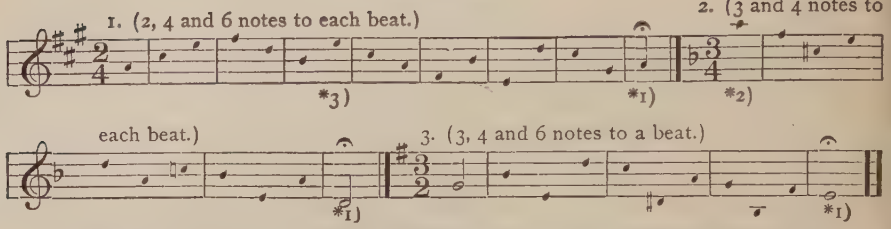


without involving the question of space (interval to next essential tone) at all. These groups

can then easily be extended to 4, 6 (and more) tones, by adding Passing-notes or Harmonic tones:



Exercises.



*1) The Cadence-tone is not to be embellished.—*2) See 258, Rules II and III.

*3) The given melody-tones should appear, as a rule, upon the first fraction of their respective beats,— where they stand; *occasionally*, however, they may be shifted to the *second* fraction,— not beyond.

CHAPTER LI.

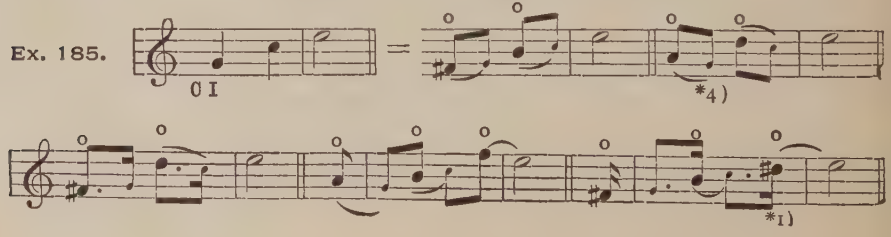
The Appoggiatura.

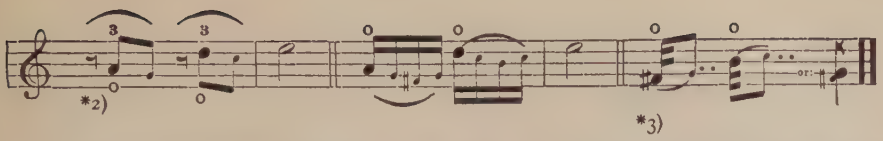
(Mat. Mus. Comp. §§ 370—374).

264. The Appoggiatura is an UNPREPARED NEIGHBORING-NOTE, which is simply placed before its principal tone, without reference to what precedes, i. e. without regard to the manner in which the Neighboring-note enters. Comp. 258, Rule I, for the distinction between the *regular* Neighboring-note and the Appoggiatura.

265. Either the *upper or lower* Neighboring-note may thus precede any chord-tone; it may be *long or short*, and although it *usually* stands upon the accented fraction of its own beat, it may also appear upon an unaccented fraction of the *preceding* beat. Comp. 262. For illustration:

Ex. 185.

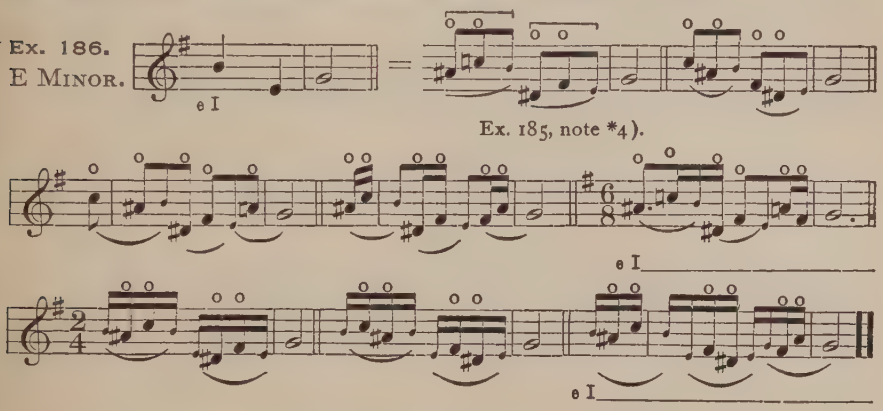




*1) These measures are all valid for C *minor* also (with e-flat and a-flat), excepting this d-sharp.—*2) It is usually possible, and *always effective*, to substitute a Rest for the first (accented) tone of an embellishing group.—*3) When very short and accented the Neighboring-note is called an Acciaccatura. *4) N. B. The choice between *upper and lower* Neighb.-notes may conform with 258, Rule II; or, as exception, the figures may *all run in the same form*. In the first case the groups will be *regular*; in the other case, *uniform and symmetrical*, though irregular.

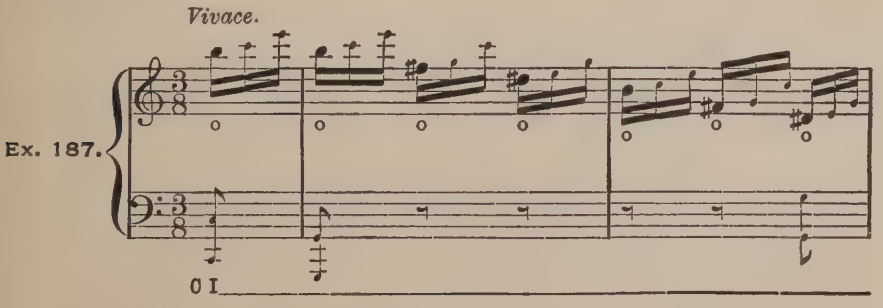
266. Upon the same principle, *both the upper and lower* Neighboring-notes may successively precede *their common* principal-tone, as *Double*-appoggiatura (broken). And, here again, both the duration and the rhythmic location of the inharmonic tones are entirely optional. Thus:

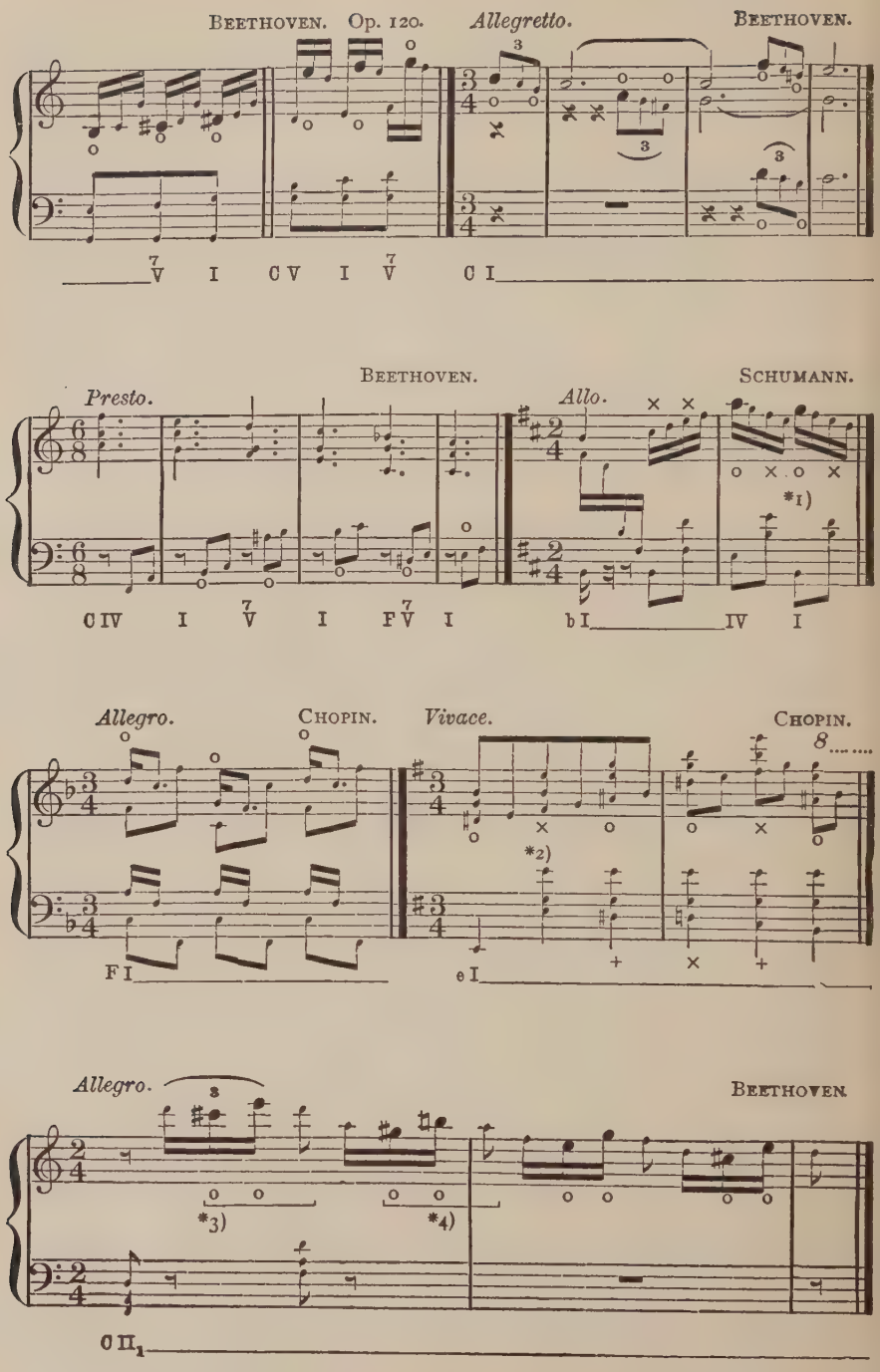
Ex. 186.
E Minor.

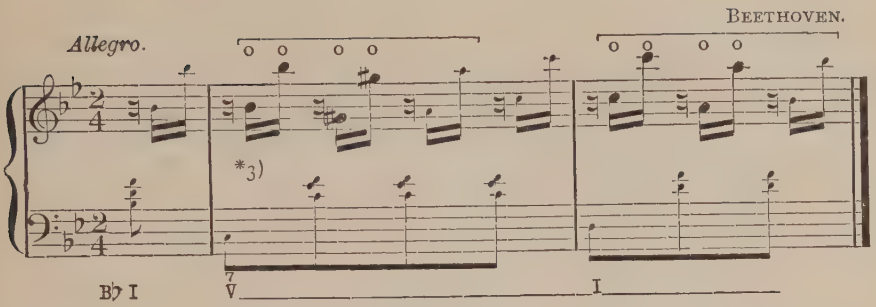


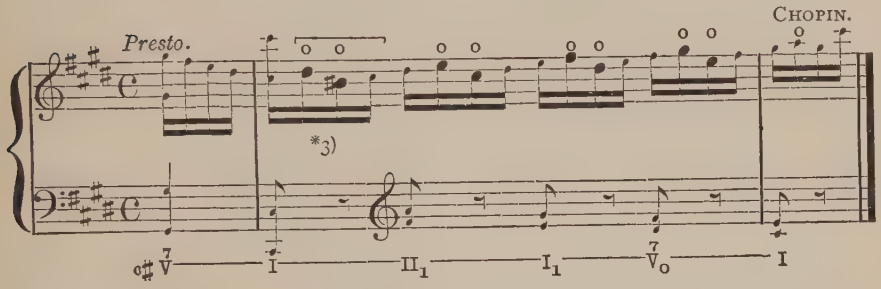
267. The rules for the treatment and choice of these unprepared Neighboring-notes correspond largely to 258, Rules II and III, which carefully review. But see Ex. 185, note *4).

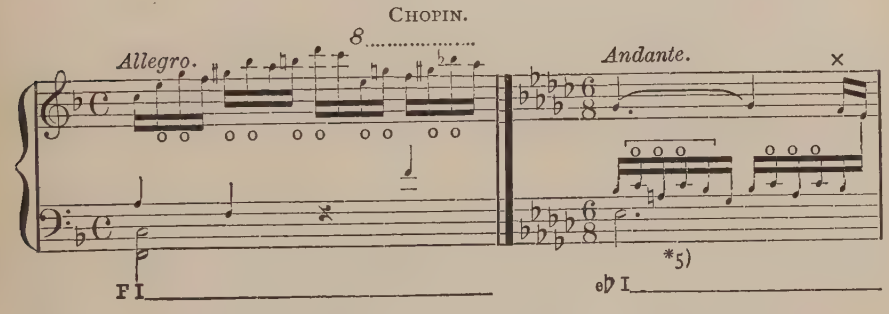
This mode of embellishment in its manifold phases is illustrated in the following example:

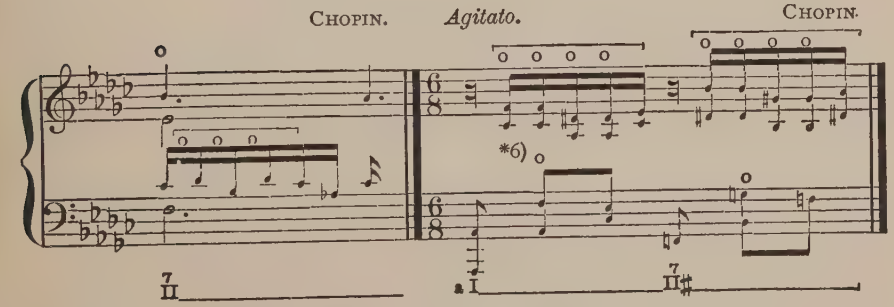



BEETHOVEN. Op. 120.
Allegretto.
BEETHOVEN.
BEETHOVEN.
SCHUMANN.
Presto.
Allo.
*1)
Allegro.
CHOPIN.
Vivace.
CHOPIN.
*2)
Allegro.
BEETHOVEN.
*3)
*4)


BEETHOVEN.
Allegro.
*3)
B♭ I
V7
I


CHOPIN.
Presto.
*3)
V7
I
II1
I1
V7o
I


CHOPIN.
8
Allegro.
Andante.
*5)
F I
e♭ I


CHOPIN.
Agitato.
CHOPIN.
*6)
II7
I
II7♯

*1) This unprepared Neighboring-note (g) illustrates the resemblance which frequently exists between the Appoggiatura and the "Free Suspension" (see 252).—*2) The f-sharp is in reality an accented *Passing*-note, but its *effect* is precisely the same as that of the adjoining Appoggiaturas. Observe the effective chromatic Passing-notes in Bass.—*3) Double appoggiatura (266).—*4) B-*natural*, and not b-flat, because the chord is *distinctly in C major* and not in d minor.—*5) A *Triple*-appoggiatura.—*6) An extraordinary passage. Each Neighboring-note in Soprano is repeated (comp. Ex. 184, note *5), and accompanied by an additional Appoggiatura in Tenor. The second chord contains the raised 4th step (d-sharp).

Lesson 63.

Take the three melodic sketches given in Lesson 62, and elaborate each one as "Running Soprano," as before, in a rhythm of two notes, then three notes, and then four notes to every beat (excepting the cadence-tone), according to some of the embellishing figures shown in Exs. 185 and 186. Simple Chord-accompaniment may be added, on the lower staff.

CHAPTER LII.

Embellishment in Alternate Voices.

268. When these various classes of auxiliary tones, explained in the foregoing chapters, are employed in alternating parts, with a view to the *embellishment of the entire harmonic structure*, the following rules must be observed:

RULE I. The adopted rhythm (of two, three, four or more notes to a beat, as the case may be) must be adhered to throughout. That is, *every* beat must be subdivided, in some voice or other, in similar proportion; only excepting an occasional interruption at an ACCENTED BEAT, if desirable. See 38. In SOPRANO, on account of its prominence, the rhythm should be regular, as a rule, irrespective of the other parts; i. e. only the *lighter* beats should be subdivided in the Soprano. This restriction is neither possible nor necessary in Alto, Tenor or Bass.

RULE II. The embellishing rhythm must not continue in any one voice longer than one or two (or three) beats, after which some other voice must take it up. The choice of voice is optional, and will depend upon circumstances, and upon the taste or judgment of the pupil. Two (but rarely three) voices may occasionally embellish simultaneously; probably in the same rhythm, but not necessarily.

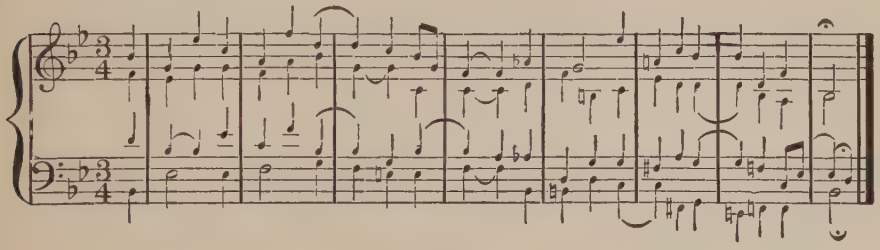
RULE III. Parallel and intercepted 5ths and 8ves must be avoided, according to 263, Rule III, which review.

RULE IV. *Ties* should be freely used, especially from a light beat over into an accented beat. They are most effective when they give rise to a Suspension. It is however usually awkward to tie any *short note* (less than a *half-beat* in duration) to the following tone.

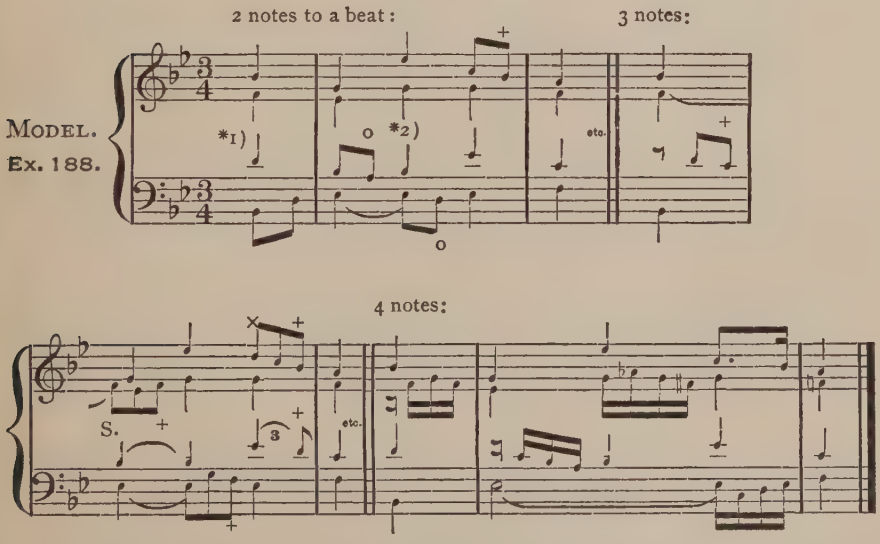
A similar advantageous effect is produced by a *Rest*, which, as stated in Ex. 185, note *2), may generally be substituted for the *first* note of an embellishing group.—Observe the directions given in Lesson 62.

Lesson 64.

Embellish the following Phrase *three times*, first in a rhythm of 2 notes, then 3 notes, and then 4 notes to each beat. Employ Harmonic tones, Neighboring-notes, Passing-notes (especially *unaccented*), and *occasionally* Appoggiaturas; with reference to the above Rules (268), and to the subjoined Model (Ex. 188): ; see also Appendix B, No. 9.



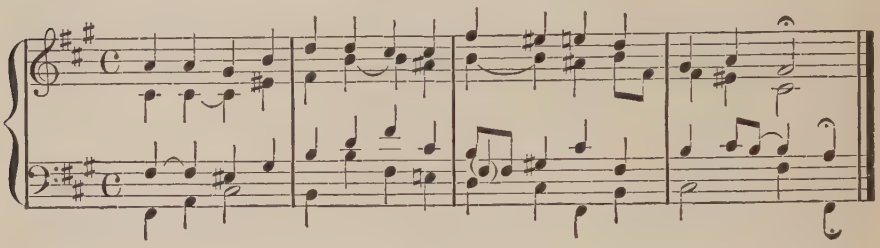
MODEL. EX. 188.



*1) Each of these fragments represents but one of a *very great number* of possible elaborations; they are to be imitated, but not *copied* literally.— *2) The *ties*, given in the original, may, as here, be removed by the Embellishment.

Lesson 65.

Elaborate the following Phrase three times, precisely as in Lesson 64, with first two, then three, and then four notes to each beat; see 258, Rule III.



CHAPTER LIII.

Harmonizing of Embellished Melodies.

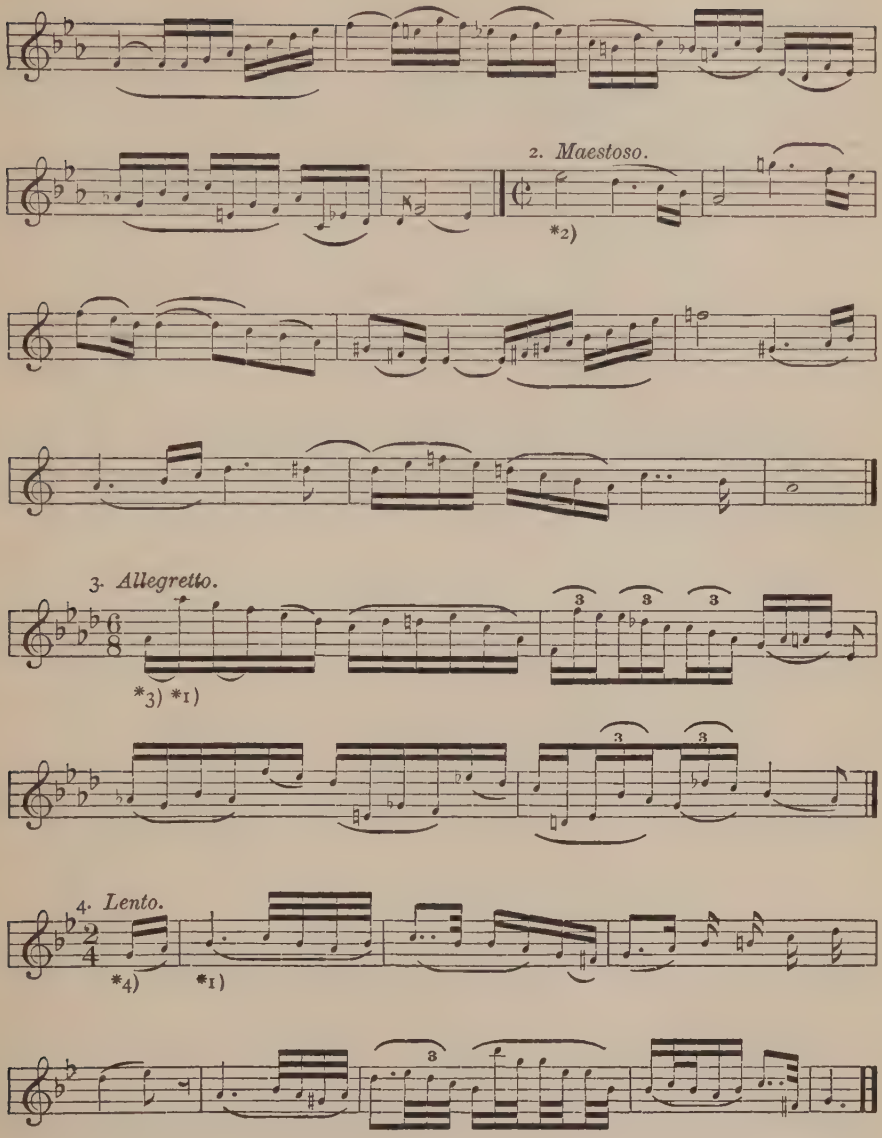
(Mat. Mus. Comp. §§ 379—382).

269. Before determining the chords for the harmonization of a florid melody, it is necessary to *reduce the melody to its original unembellished form.* Such notes as are obviously (or probably) only ornamental Inharmonic tones will not be harmonized at all, and may therefore either be omitted or imagined absent, while choosing the harmonic basis.

270. Tones of *short* value, especially in diatonic or chromatic succession, and tones with *Accidentals* (unless distinctly indicative of a Modulation) will probably be INHARMONIC, and unessential. On the other hand, all comparatively *longer* tones, and all tones which progress *with a skip*, will generally prove to be HARMONIC and essential. The indications of a Suspension or Anticipation have already been given (Lesson 57, note *1); Lessons 58, 59, 60). Aside from these very general principles, the pupil will be best guided by his judgment, experience and taste.

Lesson 66.

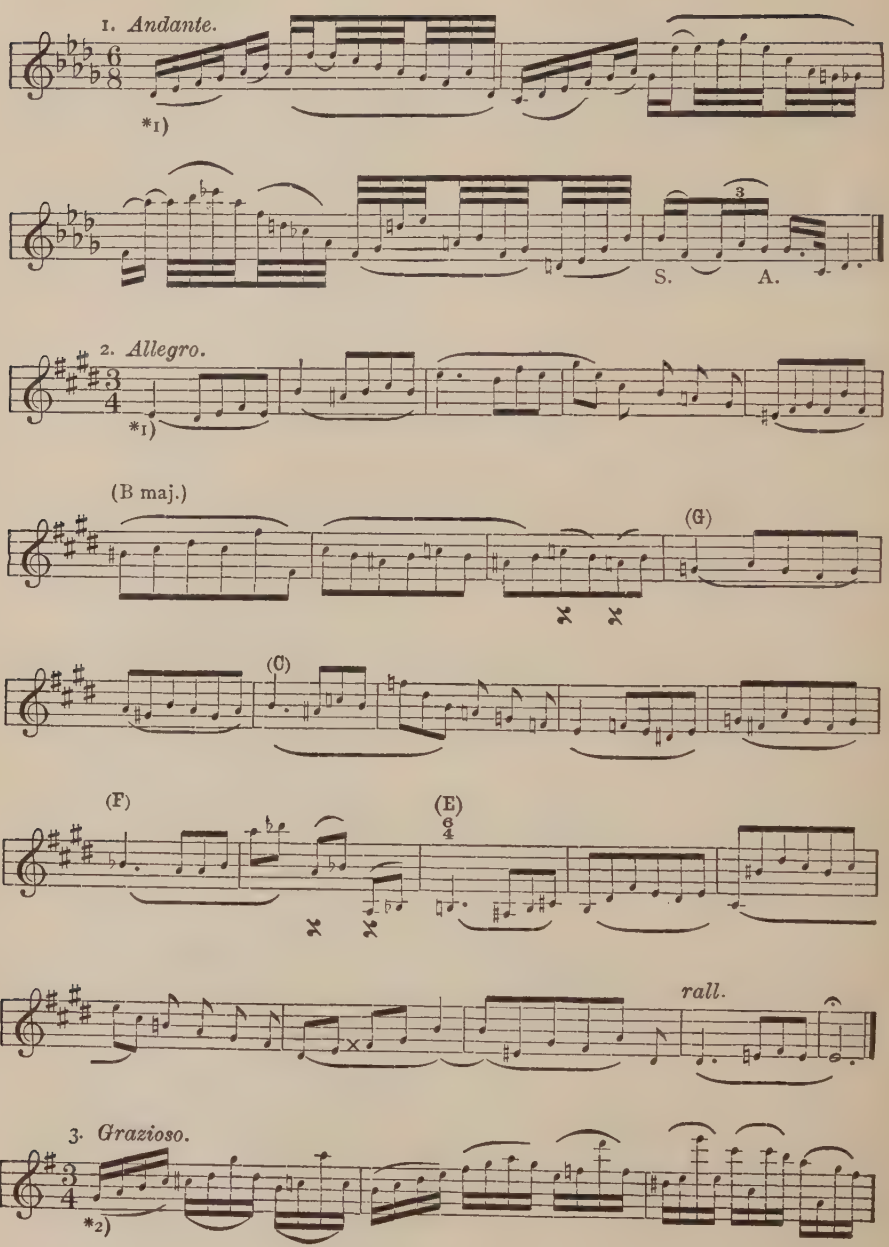
Harmonize the following florid Melodies, with reference to the subjoined notes:

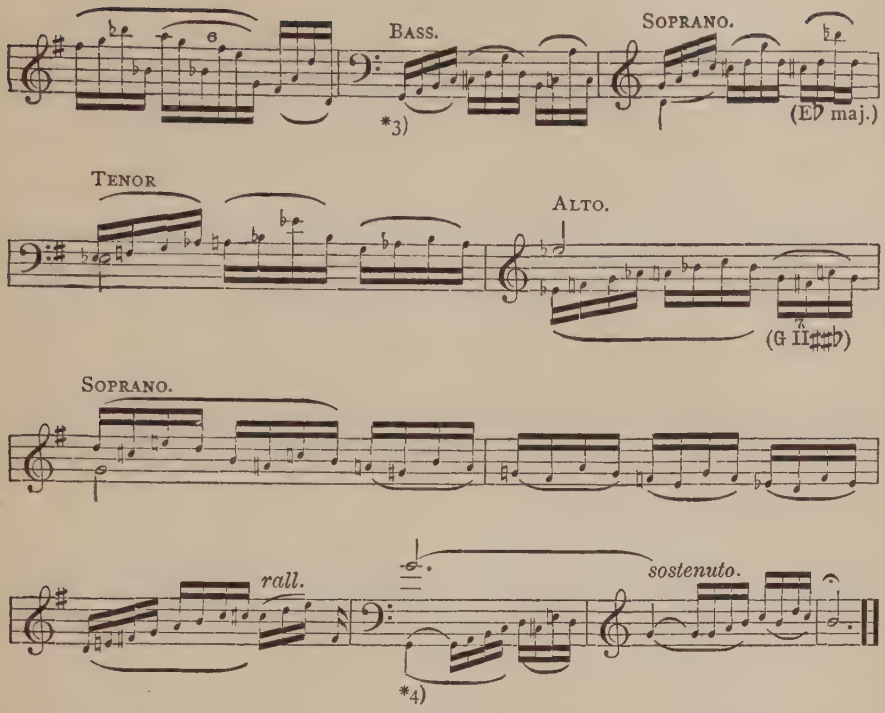


*1) One Bass-tone (and chord) to *each slur*, strictly—, or ignore the slurs altogether.—*2) For 6 measures, the rhythm of the accompanying lower parts will be | 𝄽 ♩ 𝄽 ♩ |; after that, one chord on each ♩ beat. The number and location of the lower parts is optional.—*3) The three lower voices together on the Bass-staff.—*4) Lower parts rest during this beat.

Lesson 67.

Continuation of Lesson 66:

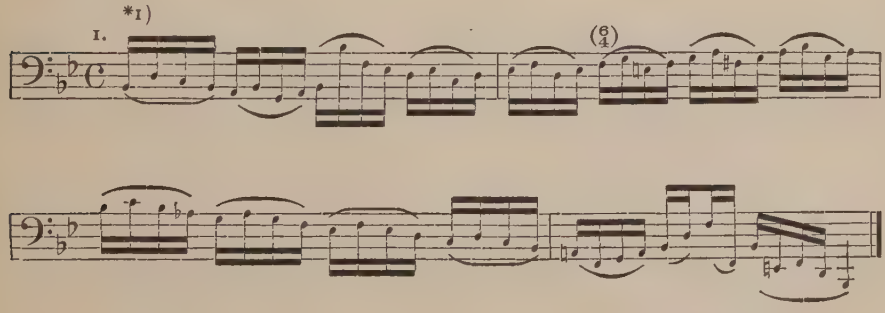


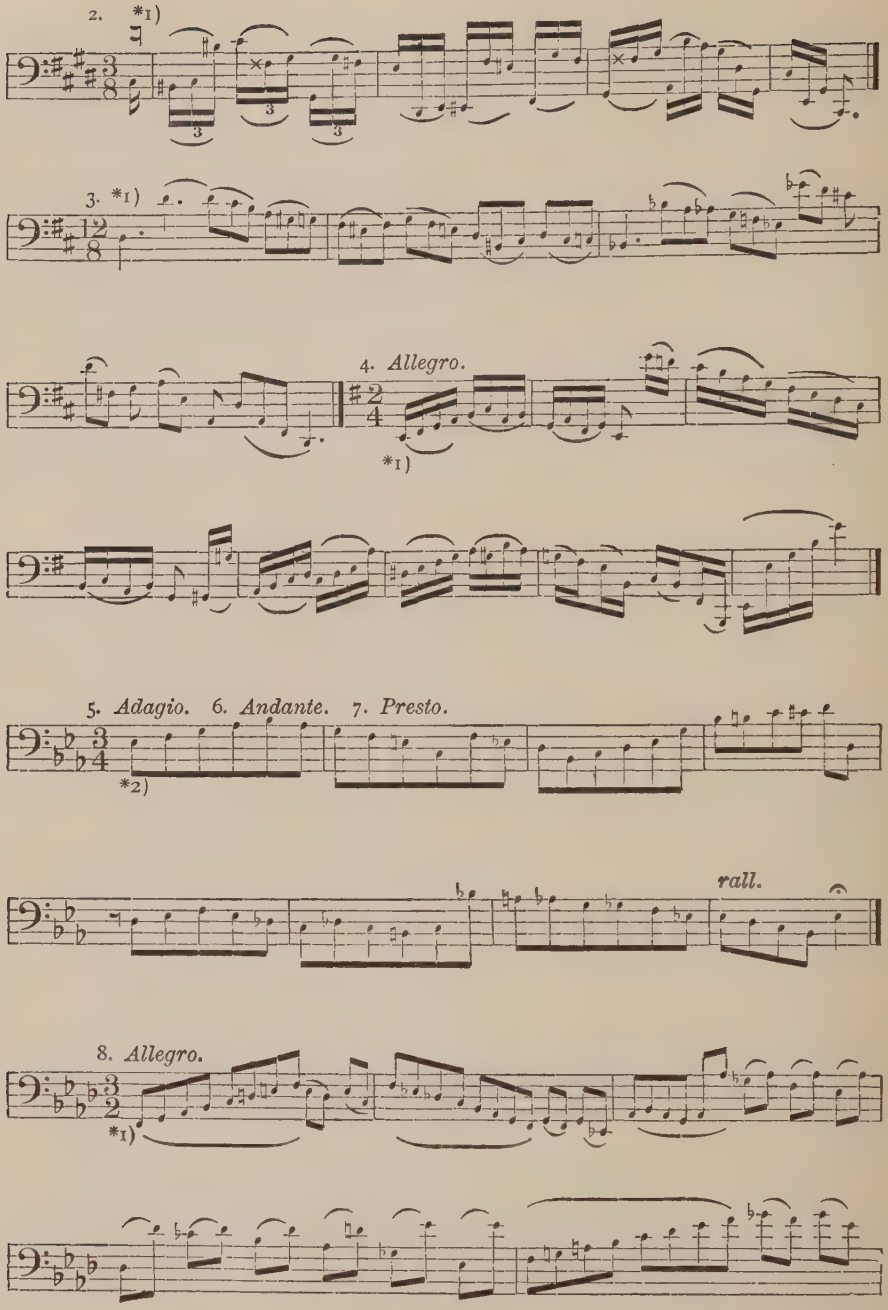


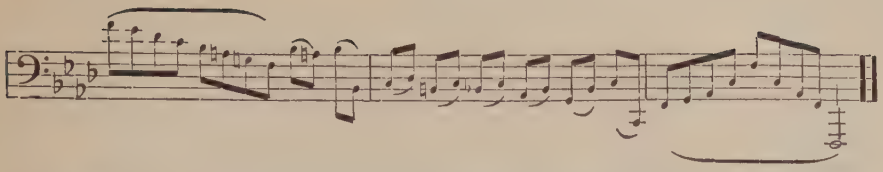
*1) One Basstone (and chord) to each slur. The three lower parts together on the Bass-staff.—*2) One chord to each slur. The harmony may be open or close, according to necessity.—*3) At each of the next 4 bar-lines the embellishment alternates, as indicated. Comp. Lesson 61, note *5).—*4) Bass. In the next measure, Soprano again. Plagal ending.

Lesson 68.

Harmonize the following *Embellished Basses*, with reference to 269 and 270, and the subjoined notes:




2. *1)
3. *1)
4. Allegro.
*1)
5. Adagio. 6. Andante. 7. Presto.
*2)
rall.
8. Allegro.
*1)



*1) The first care must be to obtain a *good, melodious Soprano*, throughout, before adding the inner parts. Use one melody note to each slur, and place the inner parts (the number of which may *occasionally* be more or less than three) together on the upper staff.—*2) To be elaborated three times, *in the given tempi*, whereby the *rhythm of the Soprano* will be as follows: *Adagio*, one melody-tone to each bass-note; *Andante*, three (or four) melody-tones in a measure; *Presto*, two melody-tones in each measure.

CHAPTER LIV.

Analysis.

271. The following excerpts are to be copied out and analyzed. The Keys, (Modulations), Chords, and Inharmonic tones (Organ-points, Suspensions, Anticipations, Passing-notes, Neighboring-notes, Appoggiaturas) must be accurately indicated, in the manner shown in the foregoing examples.

RULE I. Place the SIMPLEST CONSTRUCTION upon every chord; i. e. define it as "Tonic" or "Dominant" chord if possible, but not overlooking the possibility of its being a "Second-class" (Subdominant) chord, especially if Altered or Mixed.

RULE II. LOOK FORWARD. The identity of a chord depends upon what it *does*, i. e. upon what follows. (Review Ex. 128, notes, last clause; and observe 223).

RULE III. Take the TEMPO into consideration. What will produce the effect of an *essential* tone or chord in moderate tempo (or upon a full beat), will probably be an *unessential* Embellishing tone or chord in very rapid tempo (or upon a short fraction of a beat). Every note must be accounted for.

Lesson 69.

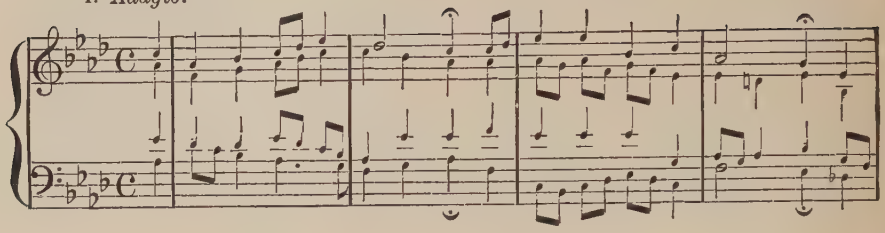
Analyze any one of the following excerpts:

MENDELSSOHN'S "Song without Words" No. 12 (Op. 30, F-sharp minor). BEETHOVEN, Pfte. Sonata op. 13, second movement (*Adagio cantabile*). CHOPIN, Prélude, Op. 28, No. 3 (G major).

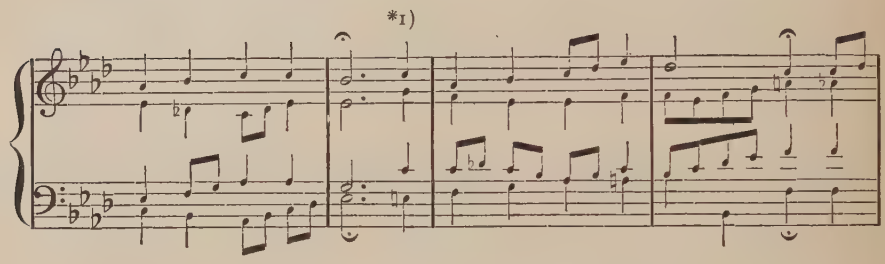
Lesson 70.

Continuation of analysis (271):

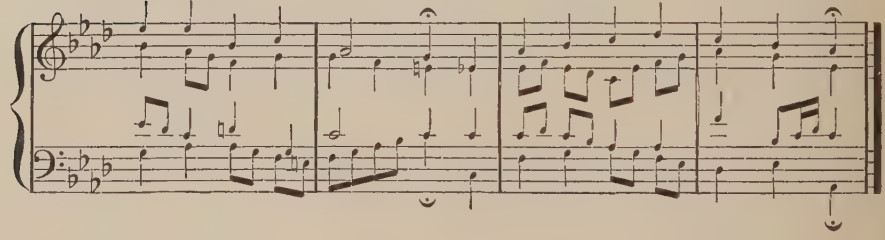
1. *Adagio.*



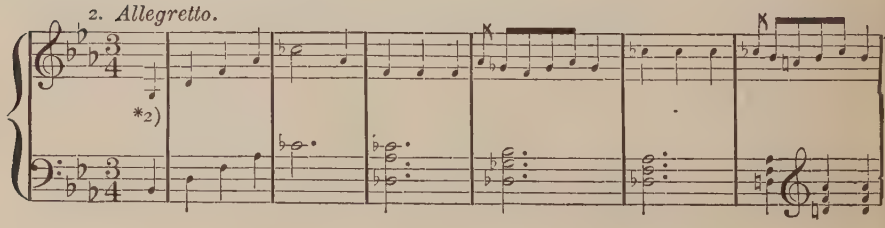
*1)



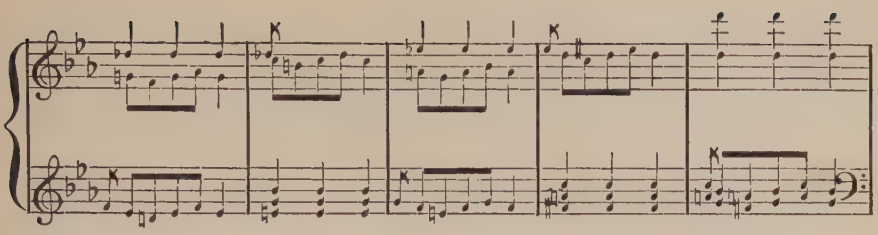
J. S. Bach. "Matthew"-Passion.



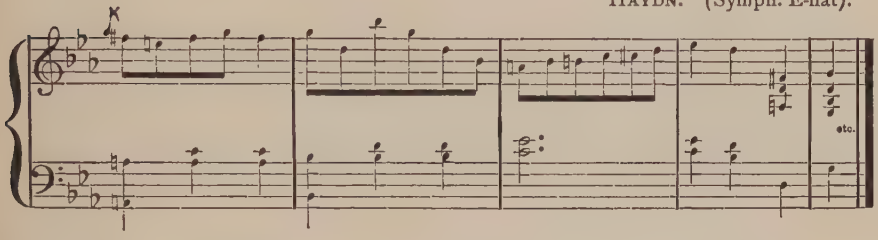
2. *Allegretto.*



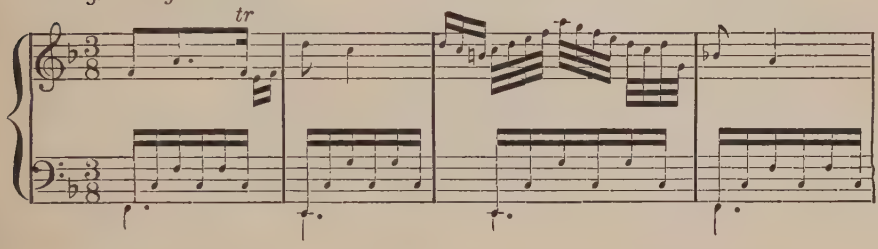
*2)

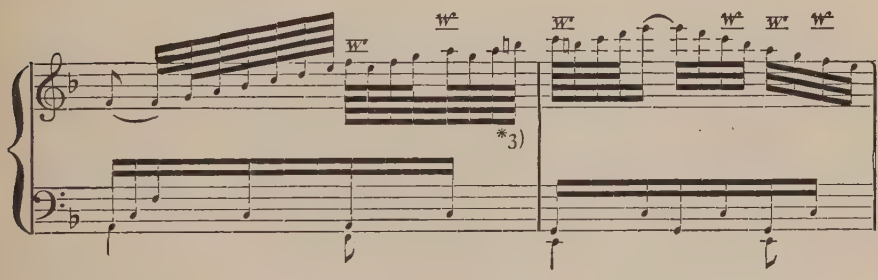


HAYDN. (Symph. E-flat).

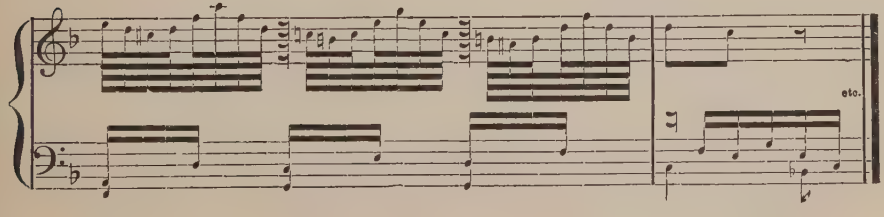


3. *Adagio molto.*





BEETHOVEN. (Variation).

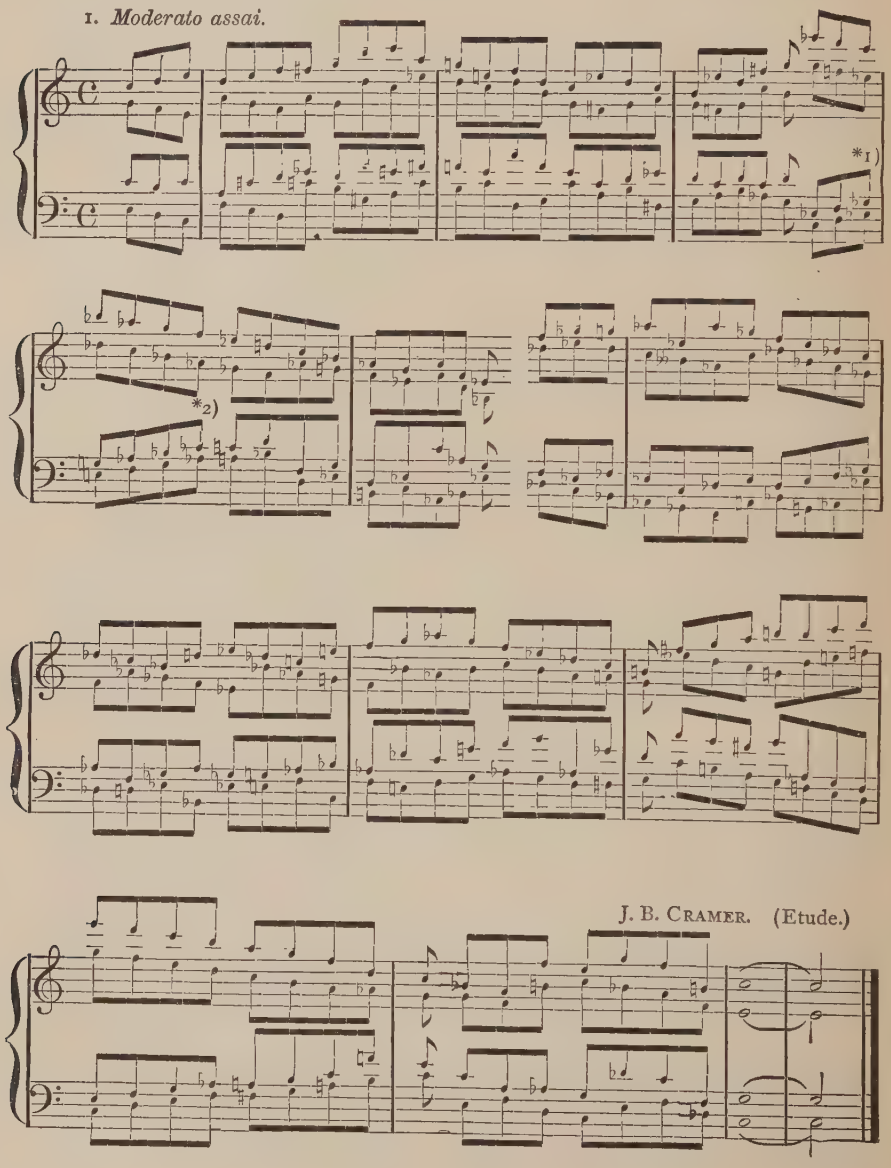


*1) At this point the second Part of the choral begins. The Melody is an almost exact reproduction of the first Part, but attention is directed to the remarkable changes in its harmonization. The latter is prompted throughout, as will be seen, by the *independent melodic progression* of the individual voices.—*2) E-flat major (or minor) V9.—*3) The Modulation into C is effected at this place, through what proves to be the IV of the new Key.

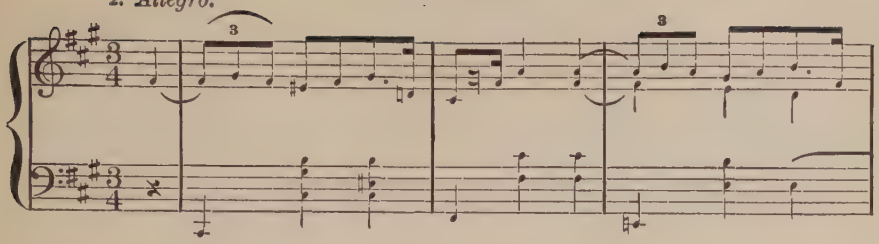
Lesson 71.

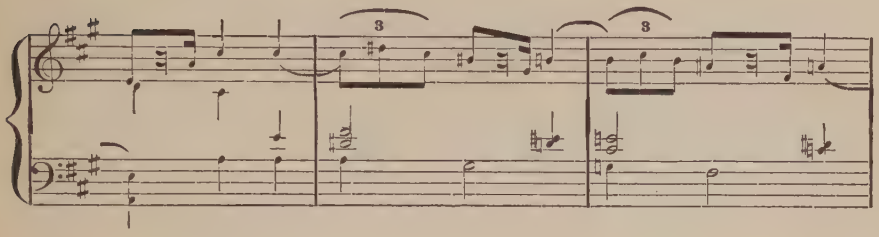
Continuation of analysis (271):

1. *Moderato assai.*

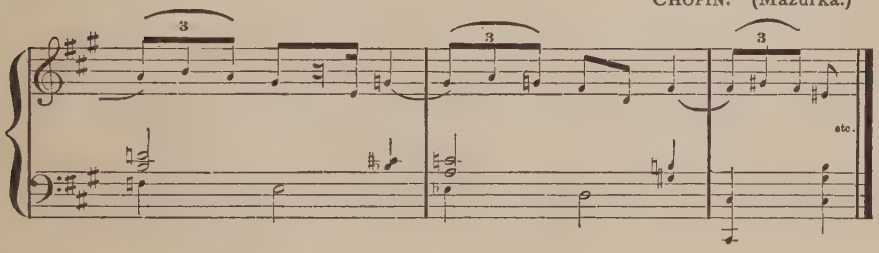


2. *Allegro.*





CHOPIN. (Mazurka.)

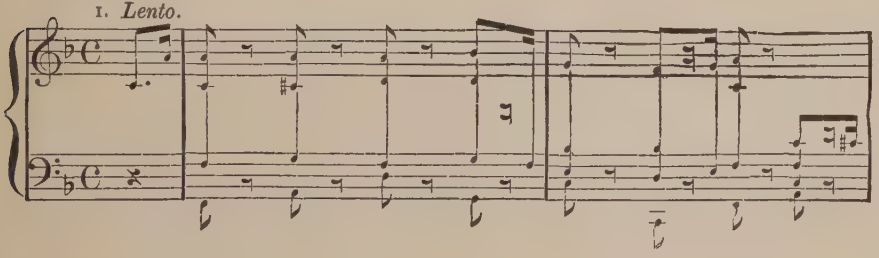


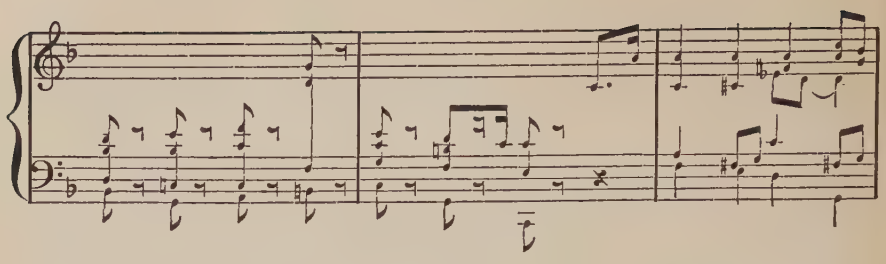
*1) The g-flat in Tenor is a passing-note, which might be written f-sharp. The chord is c-minor I.—*2) Like note *1). The chord is f-minor I, with c-flat (b-natural) as passing-note.

Lesson 72.

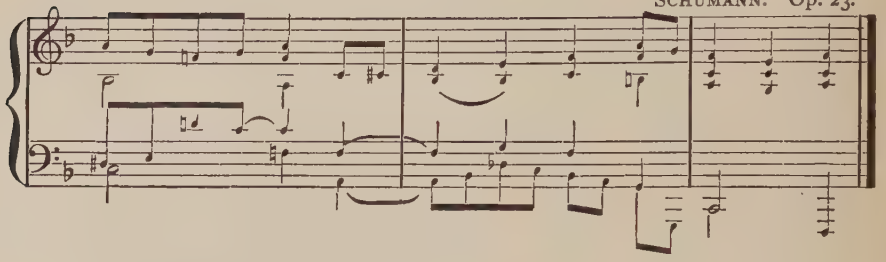
Continuation of analysis (271):

1. *Lento.*

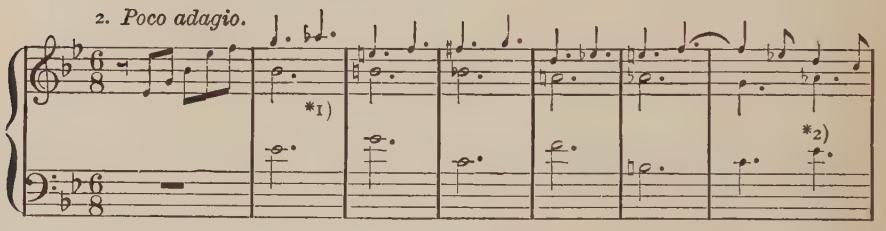


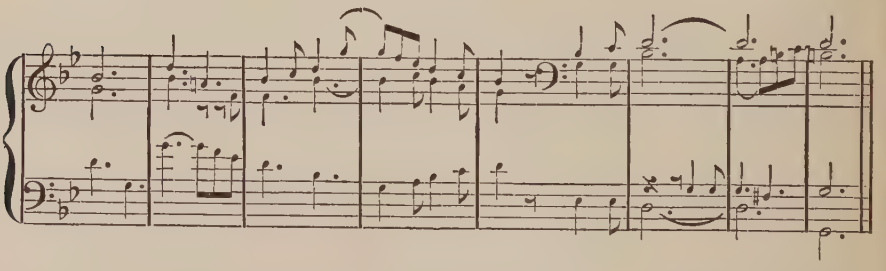


SCHUMANN. Op. 23.

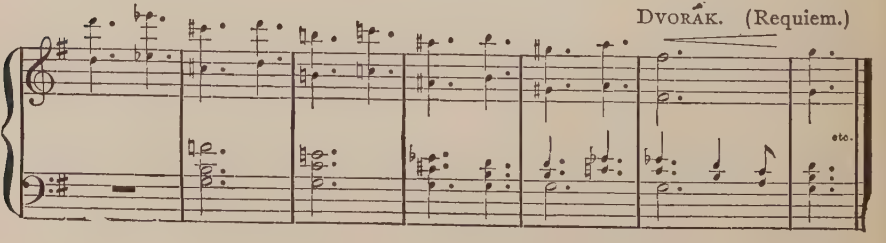


2. *Poco adagio.*

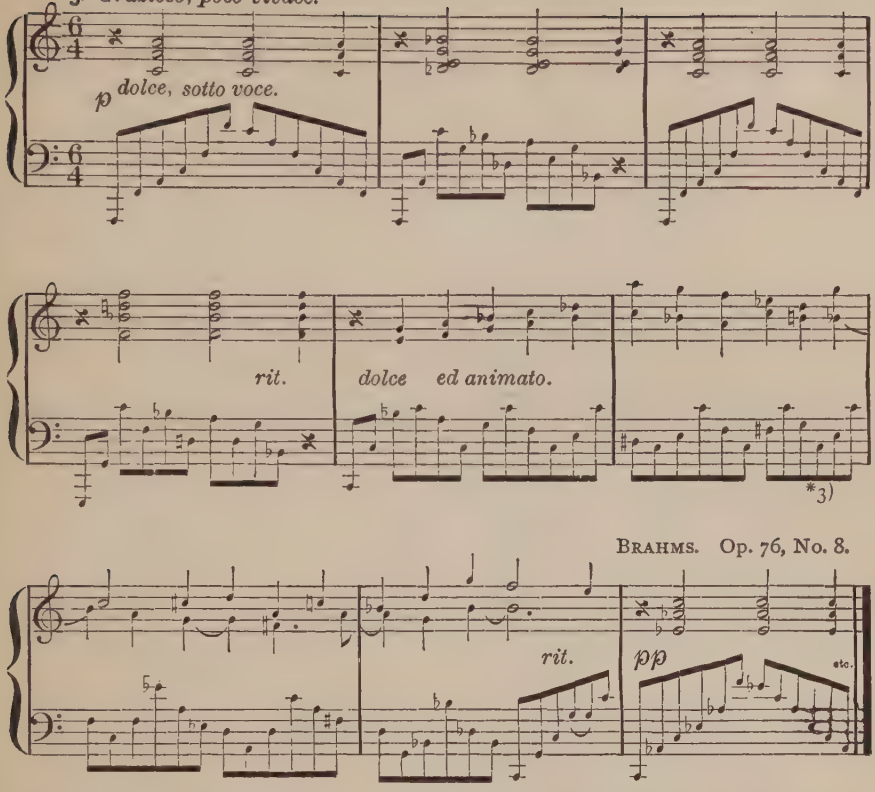




DVORÁK. (Requiem.)



3. *Grazioso, poco vivace.*



*1) The a-flat is an Anticipation (possible 9th) of the following chord.—*2) This **a-flat** is the lowered 2d step of g minor.—*3) The C in Bass is an Organ-point.

APPENDIX A.

SUMMARY OF CHORD-CONNECTIONS.

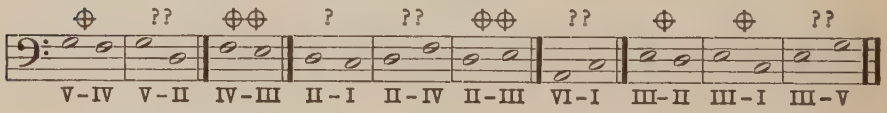
1. Triad-Progressions.

The I: can progress into *any other chord* (of the same, or even of a different key).
The V: can only progress into I or VI.
The IV: can progress into *any other chord* of the same key, excepting into the III.
The II: can only progress, readily, into V or VI. (Rare in minor.)
The VI: like the I, can progress into *any other chord*—, excepting into the I, its own Principal Triad.
The III: can only progress into IV or VI. (Rare in minor.)

General Rules.

1. Tonic chords may progress in every direction.
2. The Dominant chords can only progress, legitimately, into Tonic chords.
3. A Subordinate Triad should not precede its *own* Principal Triad.
4. The VI may *follow* any Triad.
5. ANY CHORD MAY BE REPEATED, AFTER AN ACCENT.

Table of False and Doubtful Progressions.



2. Chords of the 6th (First Inversions).

General Rules.

1. The best First Inversions are the I_1–V_1–IV_1 and II_1. The VI and III are *very rarely* inverted.

2. The progressions of First Inversions coincide, *in general*, with those of the respective fundamental Triads. The difference consists in greater freedom of movement on the part of the 6ths; namely:

3. All doubtful and false Triad-progressions are improved *by inverting the* SECOND *of the two chords*, and are rendered quite admissible *by inverting both*. For illustration:

V–IV or VI–I or IV–III wrong;
but V–IV_1 or VI–I_1 or IV–III_1 a little doubtful;
and V_1–IV_1 or VI_1–I_1 or IV_1–III_1 good.

(The inversion of the *first* of the two chords, however, does not materially affect the progression.)

4. Hence the rule, that *chords of the 6th may be connected* WITH EACH OTHER *in any order;* especially when the chords are close, so that no wide skips are involved in the Bass-voice.

5. All repetitions are possible; *even over an accent, if the Bass-tone changes.*

---

3. Chords of the 6-4 (Second Inversions).

1. The best 6-4 chords are the I_2 and IV_2. All the rest are rare.
2. A 6-4 chord may enter from, or progress into, any chord upon
   (1) the same Basstone;
   (2) the next higher or lower Basstone; or
   (3) any other form of the same chord (as Repetition).
3. The only exception is the leap in Bass from II to I_2.
4. A diatonic succession of Second Inversions is only allowed when one of them is a *Discord*-harmony.
5. No form of the Dominant harmony (neither $V–V_1–V_2–\overset{7}{V}–\overset{7}{V}_1–\overset{7}{V}_2–\overset{7}{V}_3–\overset{9}{V}$ nor $\overset{9}{V}_0$, etc.) can precede the Tonic 6-4 chord (I_2) *when the latter is accented:* the progression

   V (any form) | $\overset{>}{I}_2$ (accented)—is impracticable.

---

4. Connections of the Dominant-Discords.

1. The $\overset{7}{V}$, in its fundamental form, resolves into the I, I_2 or VI. In its inverted forms, only into the I or I_1—*not into the VI.*
2. The progressions with stationary dissonance: $\overset{7}{V}–IV$; $\overset{7}{V}–II$; $\overset{7}{V}–\overset{7}{II}$ (inversions depending upon circumstances) are permissible, especially when the Dom. harmony returns.
3. The connections of the $\overset{9}{V}$ (Complete and Incomplete) coincide approximately with those of the $\overset{7}{V}$.
4. Through the agency of *chromatics*, Dom. chords of different keys may be connected with each other.

APPENDIX B.

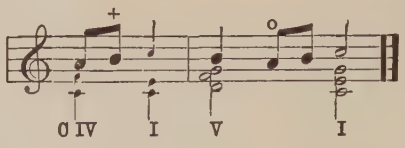
Summary of the Rules of Melodic Progression.

1. In all cases, diatonic (conjunct, smooth) progression is preferable to leaps.
2. Any reasonable leap is, however, permissible during *chord-repetition.*
3. After a *wide* leap, the voice should turn.
4. The leap of an *augmented 4th* is invariably objectionable. The progression of an augm. 2nd, dim. 3rd, and other awkward intervals, should be avoided. They are least disagreeable

during chord-repetition, or when occasioned by an Altered step of the scale, or by an Appoggiatura.

5. The 7th scale-step (Leading-tone) should ascend; the 6th and 4th scale-steps should descend.

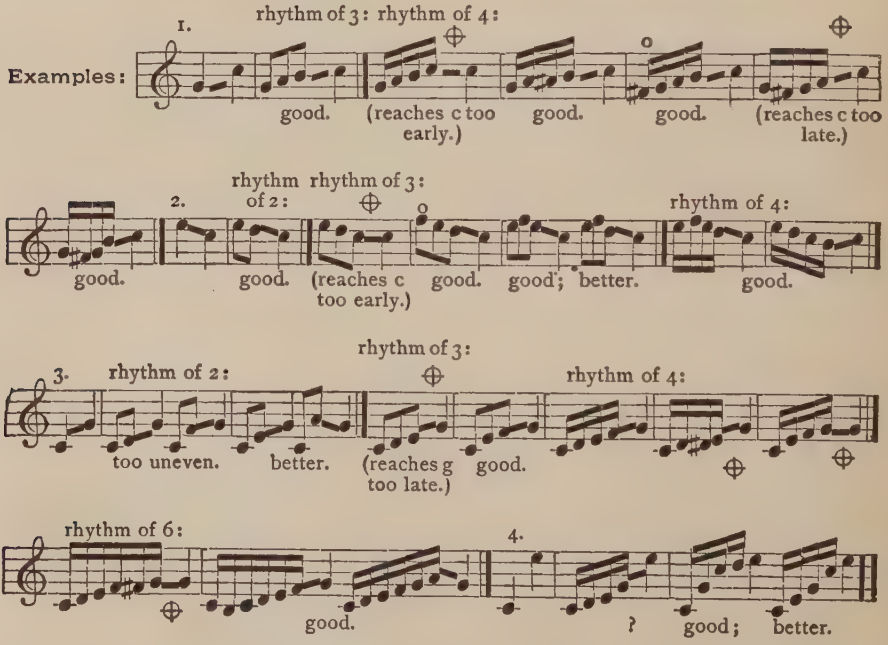
6. The succession of the 6th and 7th scale-steps, in either direction, *is invariably a violation of the spirit of melody and harmony*, and, when deemed necessary, should always be treated with great circumspection. In minor it is prohibited altogether. It is least objectionable when one of the tones is Inharmonic (a Passing-note, Neighboring-note, Suspension or Appoggiatura):



7. Chord-sevenths and chord-ninths descend.

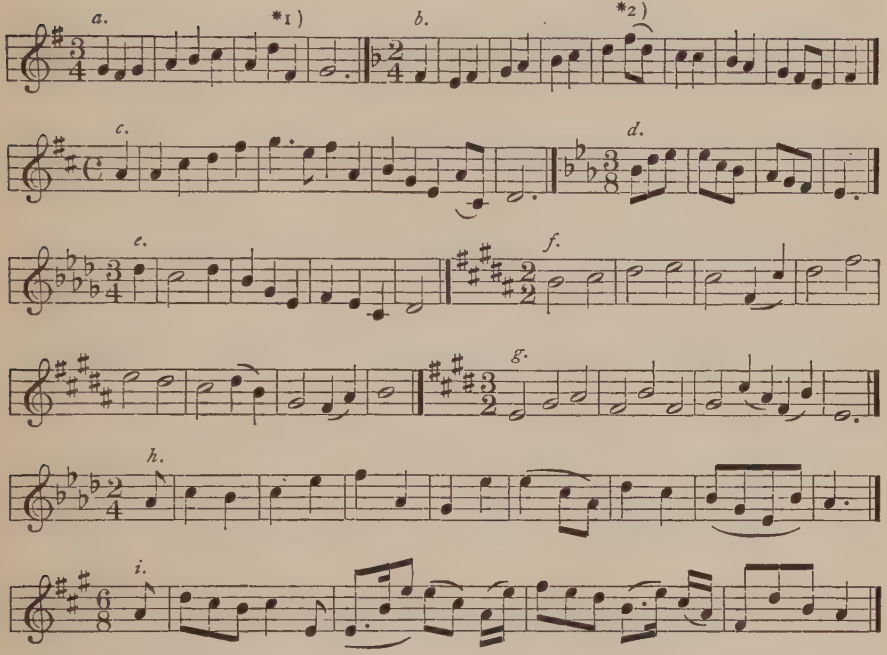
8. It is not well to leap either to or from any sensitive tone (e.g. Leading-tone, chord-7th or 9th, *chord-fifth*, Altered steps); but the skip *to* such a tone is nevertheless permitted *in the direction opposite to the tendency of the second tone;* i.e. the skip *downward* to the Leading-tone (because the latter has an upward tendency); the leap *upward* to a chord-7th or 9th; and the leap *downward* to a raised scale-step, or *upward* to a lowered scale-step.

9. In *rapid* melodic figures (in melodic Embellishment) care must be taken to calculate the *direction and distance* to the next essential tone so as to reach the latter, if possible, at exactly the right instant (usually diatonically), i.e. neither too early nor too late. If the space is too wide for conjunct (diatonic or chromatic) progression, the necessary skips generally come *first* in the group.



APPENDIX C.

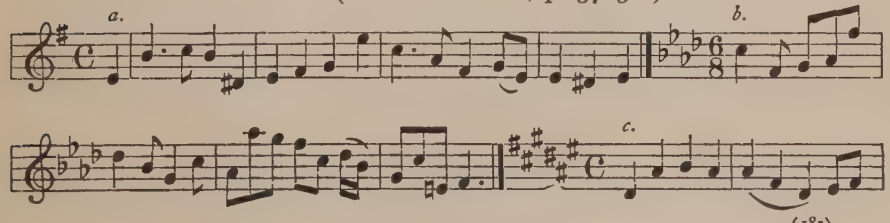
No. 1. (To Lesson 10, p. 34–35.)

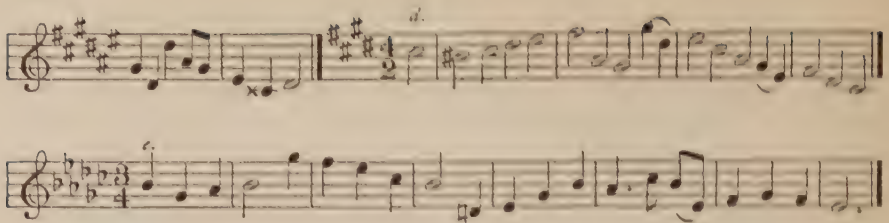


*1) Observe that a *wide skip* in the melody generally calls for chord-*repetition*. But see 64, Rule 4.

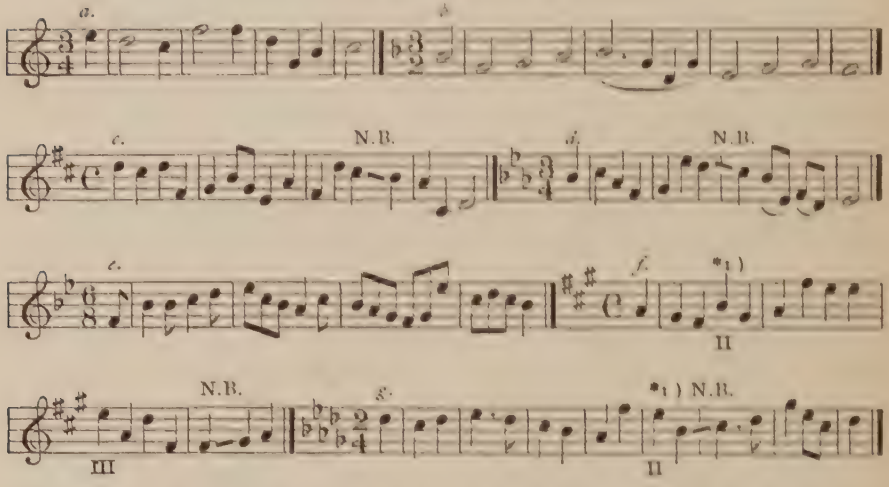
*2) The slur indicates that the tones belong to the same chord.

No. 2. (To Lesson 11, p. 37–38.)



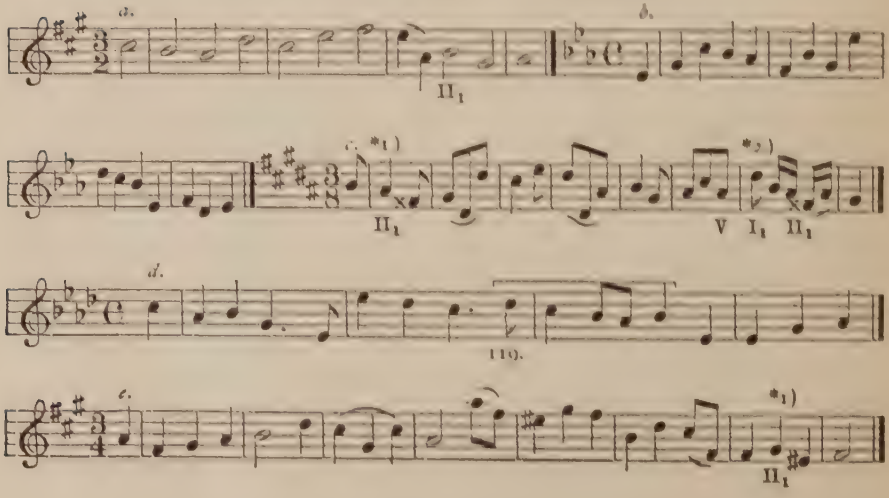


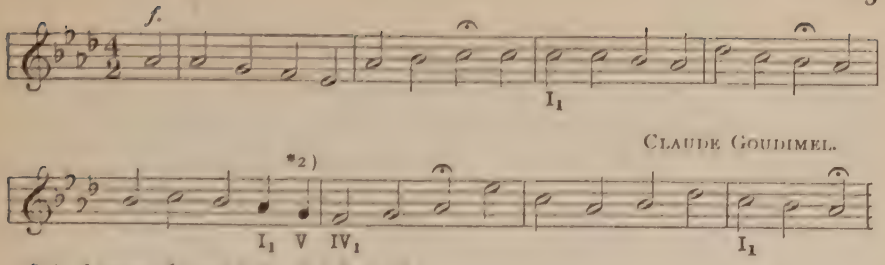
No. 3. (To Lesson 13, p. 42–43.)



*1) Not the V, because of the *skip to (or from) the chord with*; compare Ex. 62, note *3).

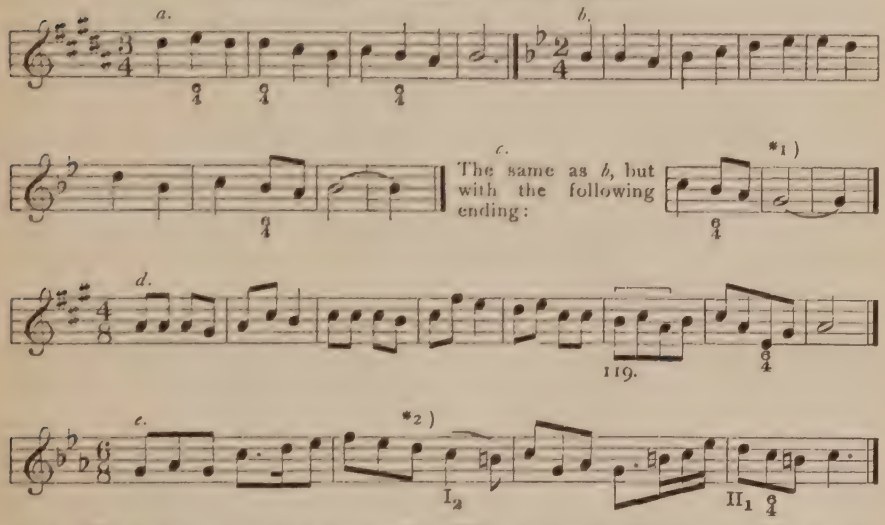
No. 4. (To Lesson 16, p. 52–53.)





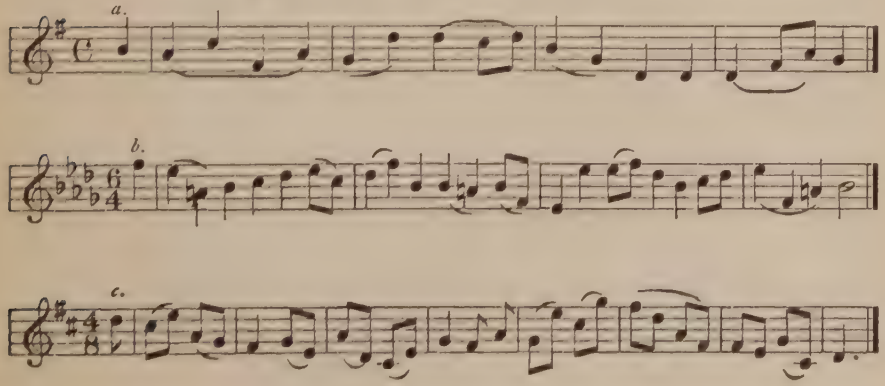
*1) Lesson 16, note *2).—*2) See 118.

No. 5. (To Lesson 18, p. 59-60.)

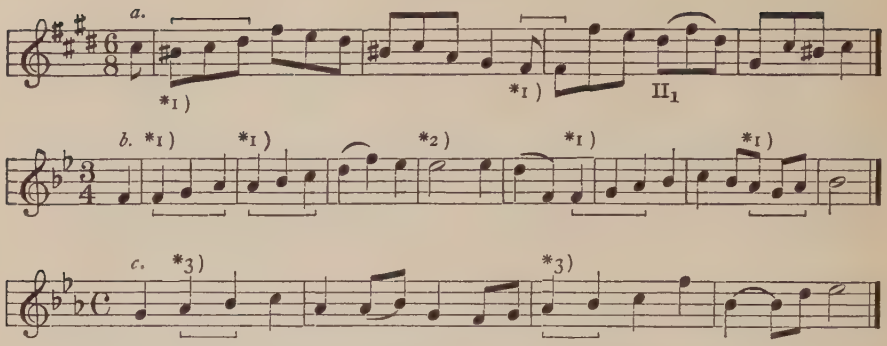


*1) The entire melody in g minor.—*2) This must be the II_1 (not the V). See Ex. 81, note *5).

No. 6. (To Lesson 23, p. 70.)



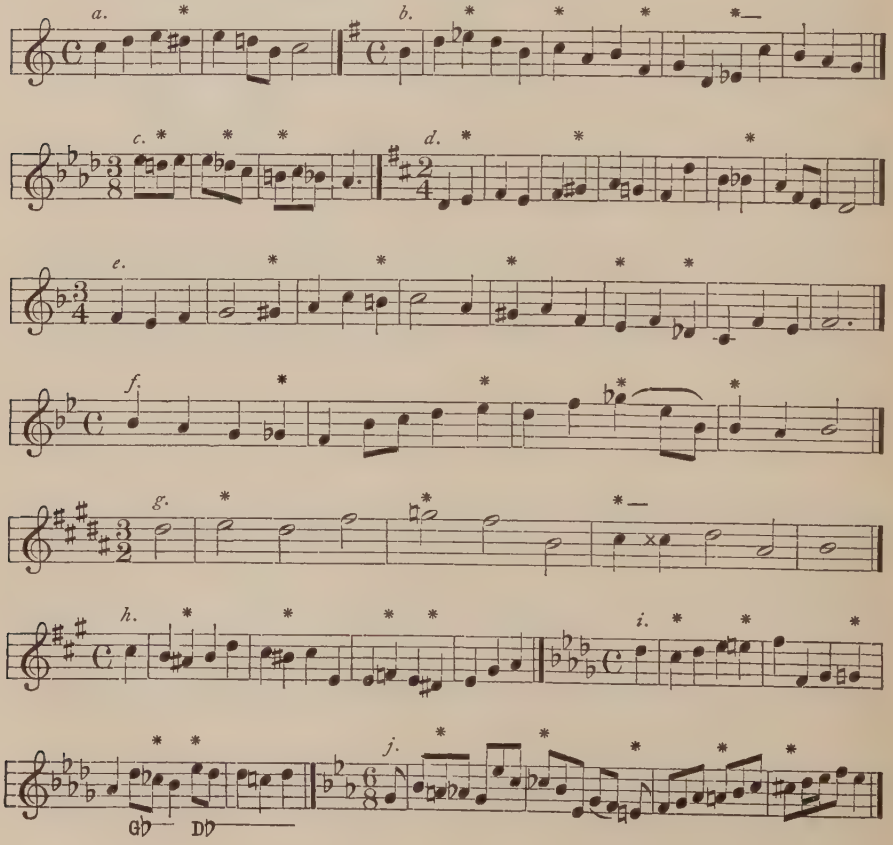
No. 7. (To Lesson 25, p. 72.)



*1) According to 149.—*2) Two Bass tones.—*3) According to 150.

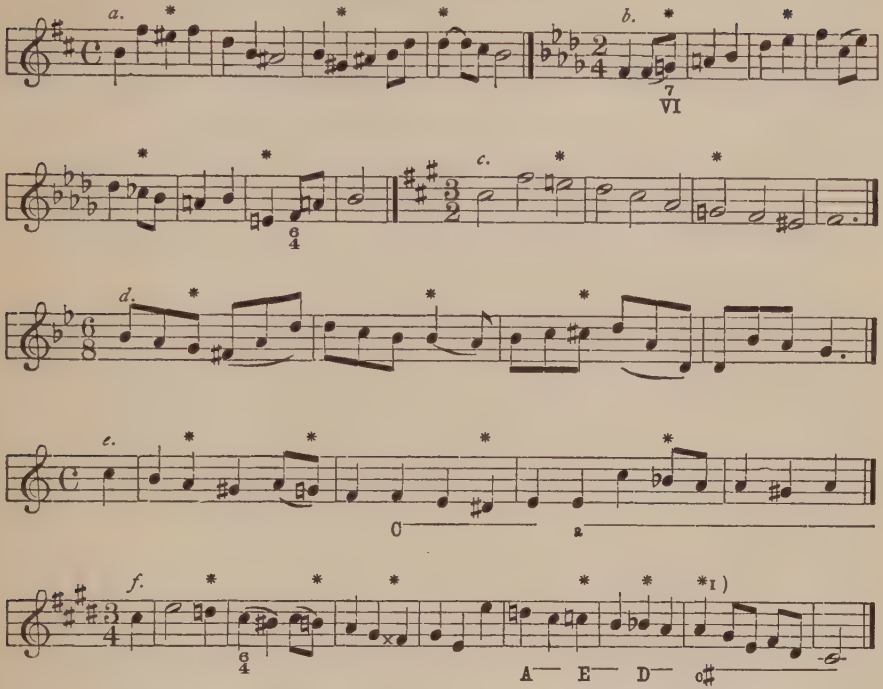
No. 8. (To Lesson 42, p. 104.)

An altered chord at each *, choice and form optional.



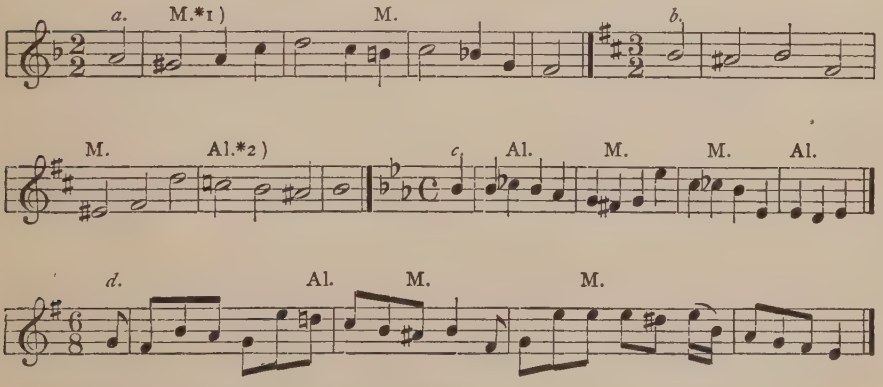
No. 9. (To Lesson 43, p. 108.)

An altered chord at each *, form optional.



*1) This irregular modulation (from D major to c♯ minor) belongs properly to Chap. XL., p. 119.

No. 10. (To Lesson 44, p. 111.)



*1) A Mixed chord.—*2) An altered chord.

THE END.

B 3420832 103286

MT 50 G592 1900 Goetschius, Percy.
The theory and practice of tone-relations; a condensed course of harmony ...

UNIVERSITY OF TEXAS AT TYLER
MT50.G592 1900
The theory and practice of tone relation
0 00 01 0068078 4